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MARCH 22, 2018

CAROLE MEHL, PLANT MANAGER  
UMICORE USA INC ARAB  
1951 GUNTERSVILLE ROAD  
ARAB AL 35016

**RE: DRAFT PERMIT**  
**NPDES PERMIT NUMBER AL0027332**

Dear Ms. Mehl:

Transmitted herein is a draft of the referenced permit.

We would appreciate your comments on the permit within **30 days** of the date of this letter. Please direct any comments of a technical or administrative nature to the undersigned.

By copy of this letter and the draft permit, we are also requesting comments within the same time frame from EPA.

Our records indicate that you are currently utilizing the Department's web-based electronic environmental (E2) reporting system for submittal of discharge monitoring reports (DMRs). Your E2 DMRs will automatically update on the effective date of this permit, if issued.

The Alabama Department of Environmental Management encourages you to voluntarily consider pollution prevention practices and alternatives at your facility. Pollution Prevention may assist you in complying with effluent limitations, and possibly reduce or eliminate monitoring requirements.

If you have questions regarding this permit or monitoring requirements, please contact Rachel Stanaland by e-mail at [restanaland@adem.alabama.gov](mailto:restanaland@adem.alabama.gov) or by phone at (334) 279-3065.

Sincerely,

Scott Ramsey, Chief  
Industrial Section  
Industrial/Municipal Branch  
Water Division

Enclosure: Draft Permit

pc via website:

Montgomery Field Office  
EPA Region IV  
U.S. Fish & Wildlife Service  
AL Historical Commission  
Advisory Council on Historic Preservation  
Department of Conservation and Natural Resources

**Birmingham Branch**  
110 Vulcan Road  
Birmingham, AL 35209-4702  
(205) 942-6168  
(205) 941-1603 (FAX)

**Decatur Branch**  
2715 Sandlin Road, S.W.  
Decatur, AL 35603-1333  
(256) 353-1713  
(256) 340-9359 (FAX)



**Mobile Branch**  
2204 Perimeter Road  
Mobile, AL 36615-1131  
(251) 450-3400  
(251) 479-2593 (FAX)

**Mobile-Coastal**  
3664 Dauphin Street, Suite B  
Mobile, AL 36608  
(251) 304-1176  
(251) 304-1189 (FAX)



# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT

PERMITTEE: UMICORE CSM NA

FACILITY LOCATION: 1951 GUNTERSVILLE ROAD  
ARAB, AL 35016

PERMIT NUMBER: AL0027332

RECEIVING WATERS: DSN003: SHOAL CREEK  
DSN004: SHOAL CREEK

*In accordance with and subject to the provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§1251-1388 (the "FWPCA"), the Alabama Water Pollution Control Act, as amended, Code of Alabama 1975, §§ 22-22-1 to 22-22-14 (the "AWPCA"), the Alabama Environmental Management Act, as amended, Code of Alabama 1975, §§22-22A-1 to 22-22A-17, and rules and regulations adopted thereunder, and subject further to the terms and conditions set forth in this permit, the Permittee is hereby authorized to discharge into the above-named receiving waters.*

ISSUANCE DATE:

EFFECTIVE DATE:

EXPIRATION DATE:

## Draft

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Alabama Department of Environmental Management

**INDUSTRIAL SECTION  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT**

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**PART I DISCHARGE LIMITATIONS, CONDITIONS, AND REQUIREMENTS****A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN003S: Storm water runoff associated with inorganic chemical manufacturing 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-

**THE DISCHARGE SHALL HAVE NO SHEEN, AND THERE SHALL BE NO DISCHARGE OF VISIBLE OIL, FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.**

- 1/ Samples collected to comply with the monitoring requirements specified above shall be collected at the following location: At the nearest accessible location just prior to discharge and after final treatment. Unless otherwise specified, composite samples shall be time composite samples collected using automatic sampling equipment or a minimum of eight (8) equal volume grab samples collected over equal time intervals. All composite samples shall be collected for the total period of discharge not to exceed 24 hours.
- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN003S (continued): Storm water runoff associated with inorganic chemical manufacturing 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Bromide (As Br)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-

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- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN004S: Storm water runoff associated with inorganic chemical manufacturing 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>			<u>MONITORING REQUIREMENTS 1/</u>				
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	-
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	-
Nitrogen, Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Nickel, Total (As Ni)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-

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- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.

During the period beginning on the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from the following point source(s) outfall(s), described more fully in the permittee's application:

DSN004S (continued): Storm water runoff associated with inorganic chemical manufacturing 3/

Such discharge shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	<u>DISCHARGE LIMITATIONS</u>					<u>MONITORING REQUIREMENTS 1/</u>		
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Measurement Frequency 2/</u>	<u>Sample Type</u>	<u>Seasonal</u>
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	-
Bromide (As Br)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	-

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- 2/ If only one sampling event occurs during a month, the sample result shall be reported on the discharge monitoring report as both the monthly average and daily maximum value for all parameters with a monthly average limitation.
- 3/ See Part IV.A for Best Management Practices (BMP) Plan Requirements.
- 4/ See Part IV.B for Stormwater Measurement and Sampling Requirements.



**B. DISCHARGE MONITORING AND RECORD KEEPING REQUIREMENTS**

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge and shall be in accordance with the provisions of this permit.

2. Test Procedures

For the purpose of reporting and compliance, permittees shall use one of the following procedures:

- a. For parameters with an EPA established Minimum Level (ML), report the measured value if the analytical result is at or above the ML and report "0" for values below the ML. Test procedures for the analysis of pollutants shall conform to 40 CFR Part 136 and guidelines published pursuant to Section 304(h) of the FWPCA, 33 U.S.C. Section 1314(h). If more than one method for analysis of a substance is approved for use, a method having a minimum level lower than the permit limit shall be used. If the minimum level of all methods is higher than the permit limit, the method having the lowest minimum level shall be used and a report of less than the minimum level shall be reported as zero and will constitute compliance; however, should EPA approve a method with a lower minimum level during the term of this permit the permittee shall use the newly approved method.

- b. For pollutants parameters without an established ML, an interim ML may be utilized. The interim ML shall be calculated as 3.18 times the Method Detection Level (MDL) calculated pursuant to 40 CFR Part 136, Appendix B.

Permittees may develop an effluent matrix-specific ML, where an effluent matrix prevents attainment of the established ML. However, a matrix specific ML shall be based upon proper laboratory method and technique. Matrix-specific MLs must be approved by the Department, and may be developed by the permittee during permit issuance, reissuance, modification, or during compliance schedule.

In either case the measured value should be reported if the analytical result is at or above the ML and "0" reported for values below the ML.

- c. For parameters without an EPA established ML, interim ML, or matrix-specific ML, a report of less than the detection limit shall constitute compliance if the detection limit of all analytical methods is higher than the permit limit using the most sensitive EPA approved method. For the purpose of calculating a monthly average, "0" shall be used for values reported less than the detection limit.

The Minimum Level utilized for procedures A and B above shall be reported on the permittee's DMR. When an EPA approved test procedure for analysis of a pollutant does not exist, the Director shall approve the procedure to be used.

3. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The facility name and location, point source number, date, time and exact place of sampling;
- b. The name(s) of person(s) who obtained the samples or measurements;
- c. The dates and times the analyses were performed;
- d. The name(s) of the person(s) who performed the analyses;
- e. The analytical techniques or methods used, including source of method and method number; and
- f. The results of all required analyses.

4. Records Retention and Production

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the above reports or the application for this permit, for a period of at least three years from the date of the sample measurement, report or application. This period may be extended by request of the Director at any time. If litigation or other enforcement action, under the AWPCA and/or the FWPCA, is ongoing which involves any of the above records, the records shall be kept until the litigation is resolved. Upon the written request of the Director or his designee, the permittee shall provide the Director with a copy of any record required to be retained by this paragraph. Copies of these records shall not be submitted unless requested.



All records required to be kept for a period of three years shall be kept at the permitted facility or an alternate location approved by the Department in writing and shall be available for inspection.

5. Monitoring Equipment and Instrumentation

All equipment and instrumentation used to determine compliance with the requirements of this permit shall be installed, maintained, and calibrated in accordance with the manufacturer's instructions or, in the absence of manufacturer's instructions, in accordance with accepted practices. The permittee shall develop and maintain quality assurance procedures to ensure proper operation and maintenance of all equipment and instrumentation. The quality assurance procedures shall include the proper use, maintenance, and installation, when appropriate, of monitoring equipment at the plant site.

C. DISCHARGE REPORTING REQUIREMENTS

1. Reporting of Monitoring Requirements

- a. The permittee shall conduct the required monitoring in accordance with the following schedule:

**MONITORING REQUIRED MORE FREQUENTLY THAN MONTHLY AND MONTHLY** shall be conducted during the first full month following the effective date of coverage under this permit and every month thereafter.

**QUARTERLY MONITORING** shall be conducted at least once during each calendar quarter. Calendar quarters are the periods of January through March, April through June, July through September, and October through December. The permittee shall conduct the quarterly monitoring during the first complete calendar quarter following the effective date of this permit and is then required to monitor once during each quarter thereafter. Quarterly monitoring may be done anytime during the quarter, unless restricted elsewhere in this permit, but it should be submitted with the last DMR due for the quarter, i.e., (March, June, September and December DMR's).

**SEMIANNUAL MONITORING** shall be conducted at least once during the period of January through June and at least once during the period of July through December. The permittee shall conduct the semiannual monitoring during the first complete calendar semiannual period following the effective date of this permit and is then required to monitor once during each semiannual period thereafter. Semiannual monitoring may be done anytime during the semiannual period, unless restricted elsewhere in this permit, but it should be submitted with the last DMR for the month of the semiannual period, i.e. (June and December DMR's).

**ANNUAL MONITORING** shall be conducted at least once during the period of January through December. The permittee shall conduct the annual monitoring during the first complete calendar annual period following the effective date of this permit and is then required to monitor once during each annual period thereafter. Annual monitoring may be done anytime during the year, unless restricted elsewhere in this permit, but it should be submitted with the December DMR.

- b. The permittee shall submit discharge monitoring reports (DMRs) on the forms provided by the Department and in accordance with the following schedule:

**REPORTS OF SEMIANNUAL TESTING** shall be submitted on a semiannual basis. The reports are due on the 28th day of JANUARY and the 28th day of JULY. The reports shall be submitted so that they are received by the Department no later than the 28th day of the month following the reporting period.

- c. Except as allowed by Provision I.C.1.c.(1) or (2), the permittee shall submit all Discharge Monitoring Reports (DMRs) required by Provision I.C.1.b by utilizing the Department's web-based Electronic Environmental (E2) Reporting System.

- (1) If the permittee is unable to complete the electronic submittal of DMR data due to technical problems originating with the Department's E2 Reporting system (this could include entry/submittal issues with an entire set of DMRs or individual parameters), the permittee is not relieved of their obligation to submit DMR data to the Department by the date specified in Provision I.C.1.b, unless otherwise directed by the Department.

If the E2 Reporting System is down on the 28<sup>th</sup> day of the month in which the DMR is due or is down for an extended period of time, as determined by the Department, when a DMR is required to be submitted, the permittee may submit the data in an alternate manner and format acceptable to the Department. Preapproved alternate acceptable methods include faxing, e-mailing, mailing, or hand-delivery of data such that they are received by the required reporting date. Within 5 calendar days of the E2 Reporting System resuming operation, the permittee shall enter the data into the E2 Reporting System, unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 DMR submittal verifying the original submittal date (date of the fax, copy of the dated e-mail, or hand-delivery stamped date), if applicable.

- (2) The permittee may submit a request to the Department for a temporary electronic reporting waiver for DMR submittals. The waiver request should include the permit number; permittee name; facility/site name; facility address; name, address, and contact information for the responsible official or duly authorized representative; a detailed statement regarding the basis for requesting such a waiver; and the duration for which the waiver is requested. Approved electronic reporting waivers are not transferrable.

Permittees with an approved electronic reporting waiver for DMRs may submit hard copy DMRs for the period that the approved electronic reporting waiver request is effective. The permittee shall submit the Department-approved DMR forms to the address listed in Provision I.C.1.e.

- (3) If a permittee is allowed to submit a hard copy DMR, the DMR must be legible and bear an original signature. Photo and electronic copies of the signature are not acceptable and shall not satisfy the reporting requirements of this permit.
- (4) If the permittee, using approved analytical methods as specified in Provision I.B.2, monitors any discharge from a point source for a limited substance identified in Provision I.A. of this permit more frequently than required by this permit, the results of such monitoring shall be included in the calculation and reporting of values on the DMR and the increased frequency shall be indicated on the DMR.
- (5) In the event no discharge from a point source identified in Provision I.A. of this permit and described more fully in the permittee's application occurs during a monitoring period, the permittee shall report "No Discharge" for such period on the appropriate DMR.

- d. All reports and forms required to be submitted by this permit, the AWPCA and the Department's Rules, shall be electronically signed (or, if allowed by the Department, traditionally signed) by a "responsible official" of the permittee as defined in ADEM Administrative Code Rule 335-6-5-.14 or a "duly authorized representative" of such official as defined in ADEM Administrative Code Rule 335-6-5-.14 and shall bear the following certification:

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

- e. Discharge Monitoring Reports required by this permit, the AWPCA, and the Department's Rules that are being submitted in hard copy shall be addressed to:

**Alabama Department of Environmental Management  
Permits and Services Division  
Environmental Data Section  
Post Office Box 301463  
Montgomery, Alabama 36130-1463**

Certified and Registered Mail containing Discharge Monitoring Reports shall be addressed to:

**Alabama Department of Environmental Management  
Permits and Services Division  
Environmental Data Section  
1400 Coliseum Boulevard  
Montgomery, Alabama 36110-2400**

- f. All other correspondence and reports required to be submitted by this permit, the AWPCA, and the Department's Rules shall be addressed to:

**Alabama Department of Environmental Management  
Water Division  
Post Office Box 301463  
Montgomery, Alabama 36130-1463**

Certified and Registered Mail shall be addressed to:

**Alabama Department of Environmental Management  
Water Division  
1400 Coliseum Boulevard  
Montgomery, Alabama 36110-2400**

- g. If this permit is a re-issuance, then the permittee shall continue to submit DMRs in accordance with the requirements of their previous permit until such time as DMRs are due as discussed in Part I.C.1.b above.

2. Noncompliance Notification

a. 24-Hour Noncompliance Reporting

The permittee shall report to the Director, within 24-hours of becoming aware of the noncompliance, any noncompliance which may endanger health or the environment. This shall include but is not limited to the following circumstances:

- (1) does not comply with any daily minimum or maximum discharge limitation for an effluent characteristic specified in Provision I. A. of this permit which is denoted by an "(X)";
- (2) threatens human health or welfare, fish or aquatic life, or water quality standards;
- (3) does not comply with an applicable toxic pollutant effluent standard or prohibition established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a);
- (4) contains a quantity of a hazardous substance which has been determined may be harmful to public health or welfare under Section 311(b)(4) of the FWPCA, 33 U.S.C. Section 1321(b)(4);
- (5) exceeds any discharge limitation for an effluent characteristic as a result of an unanticipated bypass or upset; and
- (6) is an unpermitted direct or indirect discharge of a pollutant to a water of the state (unpermitted discharges properly reported to the Department under any other requirement are not required to be reported under this provision).

The permittee shall orally report the occurrence and circumstances of such discharge to the Director within 24-hours after the permittee becomes aware of the occurrence of such discharge. In addition to the oral report, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c no later than five (5) days after becoming aware of the occurrence of such discharge.

- b. If for any reason, the permittee's discharge does not comply with any limitation of this permit, the permittee shall submit to the Director or Designee a written report as provided in Part I.C.2.c below, such report shall be submitted with the next Discharge Monitoring Report required to be submitted by Part I.C.1 of this permit after becoming aware of the occurrence of such noncompliance.

- c. Any written report required to be submitted to the Director or Designee by Part I.C.2 a. or b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (<http://adem.alabama.gov/DeptForms/Form421.pdf>) and include the following information:

- (1) A description of the discharge and cause of noncompliance;
- (2) The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- (3) A description of the steps taken and/or being taken to reduce or eliminate the noncomplying discharge and to prevent its recurrence.

**D. OTHER REPORTING AND NOTIFICATION REQUIREMENTS**

1. Anticipated Noncompliance

The permittee shall give the Director written advance notice of any planned changes or other circumstances regarding a facility which may result in noncompliance with permit requirements.

2. Termination of Discharge

The permittee shall notify the Director, in writing, when all discharges from any point source(s) identified in Provision I. A. of this permit have permanently ceased. This notification shall serve as sufficient cause for instituting procedures for modification or termination of the permit.

3. Updating Information

- a. The permittee shall inform the Director of any change in the permittee's mailing address, telephone number or in the permittee's designation of a facility contact or office having the authority and responsibility to prevent and abate violations of the AWPCA, the Department's Rules, and the terms and conditions of this permit, in writing, no later than ten (10) days after such change. Upon request of the Director or his designee, the permittee shall furnish the Director with an update of any information provided in the permit application.
- b. If the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information with a written explanation for the mistake and/or omission.

4. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director or his designee may request to determine whether cause exists for modifying, revoking and re-issuing, suspending, or terminating this permit, in whole or in part, or to determine compliance with this permit.

5. Cooling Water and Boiler Water Additives

- a. The permittee shall notify the Director in writing not later than thirty (30) days prior to instituting the use of any biocide corrosion inhibitor or chemical additive in a cooling or boiler system, not identified in the application for this permit, from which discharge is allowed by this permit. Notification is not required for additives that do not contain a heavy metal(s) as an active ingredient and that pass through a wastewater treatment system prior to discharge nor is notification required for additives that should not reasonably be expected to cause the cooling water or boiler water to exhibit toxicity as determined by analysis of manufacturer's data or testing by the permittee. Such notification shall include:
  - (1) name and general composition of biocide or chemical;
  - (2) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach;
  - (2) quantities to be used;
  - (3) frequencies of use;
  - (4) proposed discharge concentrations; and
  - (6) EPA registration number, if applicable.
- b. The use of a biocide or additive containing tributyl tin, tributyl tin oxide, zinc, chromium or related compounds in cooling or boiler system(s), from which a discharge regulated by this permit occurs, is prohibited except as exempted below. The use of a biocide or additive containing zinc, chromium or related compounds may be used in special circumstances if (1) the permit contains limits for these substances, or (2) the applicant demonstrates during the application process that the use of zinc, chromium or related compounds as a biocide or additive will not pose a reasonable potential to violate the applicable State water quality standards for these substances. The use of any additive, not identified in this permit or in the application for this permit or not exempted from notification under this permit is prohibited, prior to a determination by the Department that permit modification to control discharge of the additive is not required or prior to issuance of a permit modification controlling discharge of the additive.

6. Permit Issued Based On Estimated Characteristics

- a. If this permit was issued based on estimates of the characteristics of a process discharge reported on an EPA NPDES Application Form 2D (EPA Form 3510-2D), the permittee shall complete and submit an EPA NPDES Application Form 2C (EPA Form 3510-2C) no later than two years after the date that discharge begins. Sampling required for completion of the Form 2C shall occur when a discharge(s) from the process(s) causing the new or increased discharge is occurring. If this permit was issued based on estimates concerning the composition of a stormwater discharge(s), the permittee shall perform the sampling required by EPA NPDES Application Form 2F (EPA Form 3510-2F) no later than one year after the industrial activity generating the stormwater discharge has been fully initiated.
- b. This permit shall be reopened if required to address any new information resulting from the completion and submittal of the Form 2C and or 2F.

**E. SCHEDULE OF COMPLIANCE**

1. The permittee shall achieve compliance with the discharge limitations specified in Provision I. A. in accordance with the following schedule:
  - a. **COMPLIANCE SHALL BE ATTAINED ON THE EFFECTIVE DATE OF THIS PERMIT**
  - b. **Due to levels of Total Suspended Solids (TSS) reported in the facility's discharge, within 180 days from the effective date of this permit, the Permittee shall develop and submit to the Department an engineering report which addresses the measures to be implemented, and a schedule of implementation, to prevent or minimize sources of TSS pollutants in the storm water discharges to the Shoal Creek.**
2. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.



## PART II OTHER REQUIREMENTS, RESPONSIBILITIES, AND DUTIES

### A. OPERATIONAL AND MANAGEMENT REQUIREMENTS

#### 1. Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities only when necessary to achieve compliance with the conditions of the permit.

#### 2. Best Management Practices

- a. Dilution water shall not be added to achieve compliance with discharge limitations except when the Director or his designee has granted prior written authorization for dilution to meet water quality requirements.
- b. The permittee shall prepare, implement, and maintain a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 C.F.R. Section 112 if required thereby.
- c. The permittee shall prepare, submit for approval and implement a Best Management Practices (BMP) Plan for containment of any or all process liquids or solids, in a manner such that these materials do not present a significant potential for discharge, if so required by the Director or his designee. When submitted and approved, the BMP Plan shall become a part of this permit and all requirements of the BMP Plan shall become requirements of this permit.

#### 3. Spill Prevention, Control, and Management

The permittee shall provide spill prevention, control, and/or management sufficient to prevent any spills of pollutants from entering a water of the state or a publicly or privately owned treatment works. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and which shall prevent the contamination of groundwater and such containment system shall be capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided.

### B. OTHER RESPONSIBILITIES

#### 1. Duty to Mitigate Adverse Impacts

The permittee shall promptly take all reasonable steps to mitigate and minimize or prevent any adverse impact on human health or the environment resulting from noncompliance with any discharge limitation specified in Provision I. A. of this permit, including such accelerated or additional monitoring of the discharge and/or the receiving waterbody as necessary to determine the nature and impact of the noncomplying discharge.

#### 2. Right of Entry and Inspection

The permittee shall allow the Director, or an authorized representative, upon the presentation of proper credentials and other documents as may be required by law to:

- a. enter upon the permittee's premises where a regulated facility or activity or point source is located or conducted, or where records must be kept under the conditions of the permit;
- b. have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- c. inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the permit; and
- d. sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by the AWPCA, any substances or parameters at any location.

### C. BYPASS AND UPSET

#### 1. Bypass

- a. Any bypass is prohibited except as provided in b. and c. below:
- b. A bypass is not prohibited if:
  - (1) It does not cause any discharge limitation specified in Provision I. A. of this permit to be exceeded;



- (2) It enters the same receiving stream as the permitted outfall; and
    - (3) It is necessary for essential maintenance of a treatment or control facility or system to assure efficient operation of such facility or system.
  - c. A bypass is not prohibited and need not meet the discharge limitations specified in Provision I. A. of this permit if:
    - (1) It is unavoidable to prevent loss of life, personal injury, or severe property damage;
    - (2) There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime (this condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance); and
    - (3) The permittee submits a written request for authorization to bypass to the Director at least ten (10) days prior to the anticipated bypass (if possible), the permittee is granted such authorization, and the permittee complies with any conditions imposed by the Director to minimize any adverse impact on human health or the environment resulting from the bypass.
  - d. The permittee has the burden of establishing that each of the conditions of Provision II.C.1.b. or c. have been met to qualify for an exception to the general prohibition against bypassing contained in a. and an exemption, where applicable, from the discharge limitations specified in Provision I. A. of this permit.
- 2. Upset
  - a. A discharge which results from an upset need not meet the discharge limitations specified in Provision I. A. of this permit if:
    - (1) No later than 24-hours after becoming aware of the occurrence of the upset, the permittee orally reports the occurrence and circumstances of the upset to the Director or his designee; and
    - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the permittee furnishes the Director with evidence, including properly signed, contemporaneous operating logs, or other relevant evidence, demonstrating that (i) an upset occurred; (ii) the permittee can identify the specific cause(s) of the upset; (iii) the permittee's facility was being properly operated at the time of the upset; and (iv) the permittee promptly took all reasonable steps to minimize any adverse impact on human health or the environment resulting from the upset.
  - b. The permittee has the burden of establishing that each of the conditions of Provision II. C.2.a. of this permit have been met to qualify for an exemption from the discharge limitations specified in Provision I.A. of this permit.

#### **D. DUTY TO COMPLY WITH PERMIT, RULES, AND STATUTES**

- 1. Duty to Comply
  - a. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the AWPCA and the FWPCA and is grounds for enforcement action, for permit termination, revocation and reissuance, suspension, modification; or denial of a permit renewal application.
  - b. The necessity to halt or reduce production or other activities in order to maintain compliance with the conditions of the permit shall not be a defense for a permittee in an enforcement action.
  - c. The discharge of a pollutant from a source not specifically identified in the permit application for this permit and not specifically included in the description of an outfall in this permit is not authorized and shall constitute noncompliance with this permit.
  - d. The permittee shall take all reasonable steps, including cessation of production or other activities, to minimize or prevent any violation of this permit or to minimize or prevent any adverse impact of any permit violation.
  - e. Nothing in this permit shall be construed to preclude and negate the permittee's responsibility or liability to apply for, obtain, or comply with other ADEM, Federal, State, or Local Government permits, certifications, licenses, or other approvals.
- 2. Removed Substances

Solids, sludges, filter backwash, or any other pollutant or other waste removed in the course of treatment or control of wastewaters shall be disposed of in a manner that complies with all applicable Department Rules.

3. Loss or Failure of Treatment Facilities

Upon the loss or failure of any treatment facilities, including but not limited to the loss or failure of the primary source of power of the treatment facility, the permittee shall, where necessary to maintain compliance with the discharge limitations specified in Provision I. A. of this permit, or any other terms or conditions of this permit, cease, reduce, or otherwise control production and/or all discharges until treatment is restored. If control of discharge during loss or failure of the primary source of power is to be accomplished by means of alternate power sources, standby generators, or retention of inadequately treated effluent, the permittee must furnish to the Director within six months a certification that such control mechanisms have been installed.

4. Compliance with Statutes and Rules

- a. This permit has been issued under ADEM Administrative Code, Chapter 335-6-6. All provisions of this chapter, that are applicable to this permit, are hereby made a part of this permit. A copy of this chapter may be obtained for a small charge from the Office of General Counsel, Alabama Department of Environmental Management, 1400 Coliseum Blvd., Montgomery, AL 36130.
- b. This permit does not authorize the noncompliance with or violation of any Laws of the State of Alabama or the United States of America or any regulations or rules implementing such laws. FWPCA, 33 U.S.C. Section 1319, and Code of Alabama 1975, Section 22-22-14.

**E. PERMIT TRANSFER, MODIFICATION, SUSPENSION, REVOCATION, AND REISSUANCE**

1. Duty to Reapply or Notify of Intent to Cease Discharge

- a. If the permittee intends to continue to discharge beyond the expiration date of this permit, the permittee shall file a complete permit application for reissuance of this permit at least 180 days prior to its expiration. If the permittee does not intend to continue discharge beyond the expiration of this permit, the permittee shall submit written notification of this intent which shall be signed by an individual meeting the signatory requirements for a permit application as set forth in ADEM Administrative Code Rule 335-6-6-.09.
- b. Failure of the permittee to apply for reissuance at least 180 days prior to permit expiration will void the automatic continuation of the expiring permit provided by ADEM Administrative Code Rule 335-6-6-.06 and should the permit not be reissued for any reason any discharge after expiration of this permit will be an unpermitted discharge.

2. Change in Discharge

- a. The permittee shall apply for a permit modification at least 180 days in advance of any facility expansion, production increase, process change, or other action that could result in the discharge of additional pollutants or increase the quantity of a discharged pollutant such that existing permit limitations would be exceeded or that could result in an additional discharge point. This requirement applies to pollutants that are or that are not subject to discharge limitations in this permit. No new or increased discharge may begin until the Director has authorized it by issuance of a permit modification or a reissued permit.
- b. The permittee shall notify the Director as soon as it is known or there is reason to believe:
  - (1) That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
    - (a) one hundred micrograms per liter;
    - (b) two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dini-trophenol; and one milligram per liter for antimony;
    - (c) five times the maximum concentration value reported for that pollutant in the permit application; or
  - (2) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
    - (a) five hundred micrograms per liter;
    - (b) one milligram per liter for antimony;
    - (c) ten times the maximum concentration value reported for that pollutant in the permit application.

3. Transfer of Permit

This permit may not be transferred or the name of the permittee changed without notice to the Director and subsequent modification or revocation and reissuance of the permit to identify the new permittee and to incorporate any other changes as may be required under the FWPCA or AWPCA. In the case of a change in name, ownership or control of the permittee's premises only, a request for permit modification in a format acceptable to the Director is required at least 30 days prior to the change. In the case of a change in name, ownership or control of the permittee's premises accompanied by a change or proposed change in effluent characteristics, a complete permit application is required to be submitted to the Director at least 180 days prior to the change. Whenever the Director is notified of a change in name, ownership or control, he may decide not to modify the existing permit and require the submission of a new permit application.

4. Permit Modification and Revocation

a. This permit may be modified or revoked and reissued, in whole or in part, during its term for cause, including but not limited to, the following:

- (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to revoke and reissue this permit instead of terminating the permit;
- (2) If a request to transfer this permit has been received, the Director may decide to revoke and reissue or to modify the permit; or
- (3) If modification or revocation and reissuance is requested by the permittee and cause exists, the Director may grant the request.

b. This permit may be modified during its term for cause, including but not limited to, the following:

- (1) If cause for termination under Provision II. E. 5. of this permit exists, the Director may choose to modify this permit instead of terminating this permit;
- (2) There are material and substantial alterations or additions to the facility or activity generating wastewater which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit;
- (3) The Director has received new information that was not available at the time of permit issuance and that would have justified the application of different permit conditions at the time of issuance;
- (4) A new or revised requirement(s) of any applicable standard or limitation is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA;
- (5) Errors in calculation of discharge limitations or typographical or clerical errors were made;
- (6) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;
- (7) To the extent allowed by ADEM Administrative Code, Rule 335-6-6-.17, permits may be modified to change compliance schedules;
- (8) To agree with a granted variance under 301(c), 301(g), 301(h), 301(k), or 316(a) of the FWPCA or for fundamentally different factors;
- (9) To incorporate an applicable 307(a) FWPCA toxic effluent standard or prohibition;
- (10) When required by the reopener conditions in this permit;
- (11) When required under 40 CFR 403.8(e) (compliance schedule for development of pretreatment program);
- (12) Upon failure of the state to notify, as required by Section 402(b)(3) of the FWPCA, another state whose waters may be affected by a discharge permitted by this permit;
- (13) When required to correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions; or
- (14) When requested by the permittee and the Director determines that the modification has cause and will not result in a violation of federal or state law, regulations or rules.

5. Permit Termination

This permit may be terminated during its term for cause, including but not limited to, the following:

- a. Violation of any term or condition of this permit;
- b. The permittee's misrepresentation or failure to disclose fully all relevant facts in the permit application or during the permit issuance process or the permittee's misrepresentation of any relevant facts at any time;
- c. Materially false or inaccurate statements or information in the permit application or the permit;
- d. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;
- e. The permittee's discharge threatens human life or welfare or the maintenance of water quality standards;
- f. Permanent closure of the facility generating the wastewater permitted to be discharged by this permit or permanent cessation of wastewater discharge;
- g. New or revised requirements of any applicable standard or limitation that is promulgated under Sections 301(b)(2)(C), (D), (E), and (F), and 307(a)(2) of the FWPCA that the Director determines cannot be complied with by the permittee; or
- h. Any other cause allowed by the ADEM Administrative Code, Chapter 335-6-6.

6. Permit Suspension

This permit may be suspended during its term for noncompliance until the permittee has taken action(s) necessary to achieve compliance.

7. Request for Permit Action Does Not Stay Any Permit Requirement

The filing of a request by the permittee for modification, suspension or revocation of this permit, in whole or in part, does not stay any permit term or condition.

**F. COMPLIANCE WITH TOXIC POLLUTANT STANDARD OR PROHIBITION**

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the FWPCA, 33 U.S.C. Section 1317(a), for a toxic pollutant discharged by the permittee and such standard or prohibition is more stringent than any discharge limitation on the pollutant specified in Provision I. A. of this permit, or controls a pollutant not limited in Provision I. A. of this permit, this permit shall be modified to conform to the toxic pollutant effluent standard or prohibition and the permittee shall be notified of such modification. If this permit has not been modified to conform to the toxic pollutant effluent standard or prohibition before the effective date of such standard or prohibition, the permittee shall attain compliance with the requirements of the standard or prohibition within the time period required by the standard or prohibition and shall continue to comply with the standard or prohibition until this permit is modified or reissued.

**G. DISCHARGE OF WASTEWATER GENERATED BY OTHERS**

The discharge of wastewater, generated by any process, facility, or by any other means not under the operational control of the permittee or not identified in the application for this permit or not identified specifically in the description of an outfall in this permit is not authorized by this permit.

## PART III OTHER PERMIT CONDITIONS

### A. CIVIL AND CRIMINAL LIABILITY

#### 1. Tampering

Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained or performed under the permit shall, upon conviction, be subject to penalties as provided by the AWPCA.

#### 2. False Statements

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be subject to penalties as provided by the AWPCA.

#### 3. Permit Enforcement

a. Any NPDES permit issued or reissued by the Department is a permit for the purpose of the AWPCA and the FWPCA and as such any terms, conditions, or limitations of the permit are enforceable under state and federal law.

b. Any person required to have a NPDES permit pursuant to ADEM Administrative Code Chapter 335-6-6 and who discharges pollutants without said permit, who violates the conditions of said permit, who discharges pollutants in a manner not authorized by the permit, or who violates applicable orders of the Department or any applicable rule or standard of the Department, is subject to any one or combination of the following enforcement actions under applicable state statutes.

- (1) An administrative order requiring abatement, compliance, mitigation, cessation, clean-up, and/or penalties;
- (2) An action for damages;
- (3) An action for injunctive relief; or
- (4) An action for penalties.

c. If the permittee is not in compliance with the conditions of an expiring or expired permit the Director may choose to do any or all of the following provided the permittee has made a timely and complete application for reissuance of the permit:

- (1) initiate enforcement action based upon the permit which has been continued;
- (2) issue a notice of intent to deny the permit reissuance. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;
- (3) reissue the new permit with appropriate conditions; or
- (4) take other actions authorized by these rules and AWPCA.

#### 4. Relief from Liability

Except as provided in Provision II.C.1 (Bypass) and Provision II.C.2 (Upset), nothing in this permit shall be construed to relieve the permittee of civil or criminal liability under the AWPCA or FWPCA for noncompliance with any term or condition of this permit.

### B. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties to which the permittee is or may be subject under Section 311 of the FWPCA, 33 U.S.C. Section 1321.

### C. PROPERTY AND OTHER RIGHTS

This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of federal, state, or local laws or regulations, nor does it authorize or approve the construction of any physical structures or facilities or the undertaking of any work in any waters of the state or of the United States.



**D. AVAILABILITY OF REPORTS**

Except for data determined to be confidential under Code of Alabama 1975, Section 22-22-9(c), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. Effluent data shall not be considered confidential.

**E. EXPIRATION OF PERMITS FOR NEW OR INCREASED DISCHARGES**

1. If this permit was issued for a new discharger or new source, this permit shall expire eighteen months after the issuance date if construction of the facility has not begun during the eighteen-month period.
2. If this permit was issued or modified to allow the discharge of increased quantities of pollutants to accommodate the modification of an existing facility and if construction of this modification has not begun during the eighteen month period after issuance of this permit or permit modification, this permit shall be modified to reduce the quantities of pollutants allowed to be discharged to those levels that would have been allowed if the modification of the facility had not been planned.
3. Construction has begun when the owner or operator has:
  - a. begun, or caused to begin as part of a continuous on-site construction program:
    - (1) any placement, assembly, or installation of facilities or equipment; or
    - (2) significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or
  - b. entered into a binding contractual obligation for the purpose of placement, assembly, or installation of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under the paragraph. The entering into a lease with the State of Alabama for exploration and production of hydrocarbons shall also be considered beginning construction.

**F. COMPLIANCE WITH WATER QUALITY STANDARDS**

1. On the basis of the permittee's application, plans, or other available information, the Department has determined that compliance with the terms and conditions of this permit should assure compliance with the applicable water quality standards.
2. Compliance with permit terms and conditions notwithstanding, if the permittee's discharge(s) from point sources identified in Provision I. A. of this permit cause or contribute to a condition in contravention of state water quality standards, the Department may require abatement action to be taken by the permittee in emergency situations or modify the permit pursuant to the Department's Rules, or both.
3. If the Department determines, on the basis of a notice provided pursuant to this permit or any investigation, inspection or sampling, that a modification of this permit is necessary to assure maintenance of water quality standards or compliance with other provisions of the AWPCA or FWPCA, the Department may require such modification and, in cases of emergency, the Director may prohibit the discharge until the permit has been modified.

**G. GROUNDWATER**

Unless specifically authorized under this permit, this permit does not authorize the discharge of pollutants to groundwater. Should a threat of groundwater contamination occur, the Director may require groundwater monitoring to properly assess the degree of the problem and the Director may require that the Permittee undertake measures to abate any such discharge and/or contamination.

**H. DEFINITIONS**

1. Average monthly discharge limitation - means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
2. Average weekly discharge limitation - means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week (zero discharge days shall not be included in the number of "daily discharges" measured and a less than detectable test result shall be treated as a concentration of zero if the most sensitive EPA approved method was used).
3. Arithmetic Mean -- means the summation of the individual values of any set of values divided by the number of individual values.



4. AWPCA - means the Alabama Water Pollution Control Act.
5. BOD – means the five-day measure of the pollutant parameter biochemical oxygen demand.
6. Bypass - means the intentional diversion of waste streams from any portion of a treatment facility.
7. CBOD – means the five-day measure of the pollutant parameter carbonaceous biochemical oxygen demand.
8. Daily discharge - means the discharge of a pollutant measured during any consecutive 24-hour period in accordance with the sample type and analytical methodology specified by the discharge permit.
9. Daily maximum - means the highest value of any individual sample result obtained during a day.
10. Daily minimum - means the lowest value of any individual sample result obtained during a day.
11. Day - means any consecutive 24-hour period.
12. Department - means the Alabama Department of Environmental Management.
13. Director - means the Director of the Department.
14. Discharge - means "[t]he addition, introduction, leaking, spilling or emitting of any sewage, industrial waste, pollutant or other wastes into waters of the state". Code of Alabama 1975, Section 22-22-1(b)(8).
15. Discharge Monitoring Report (DMR) - means the form approved by the Director to accomplish reporting requirements of an NPDES permit.
16. DO – means dissolved oxygen.
17. 8HC – means 8-hour composite sample, including any of the following:
  - a. The mixing of at least 5 equal volume samples collected at constant time intervals of not more than 2 hours over a period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
  - b. A sample continuously collected at a constant rate over period of not less than 8 hours between the hours of 6:00 a.m. and 6:00 p.m. If the sampling period exceeds 8 hours, sampling may be conducted beyond the 6:00 a.m. to 6:00 p.m. period.
18. EPA - means the United States Environmental Protection Agency.
19. FC – means the pollutant parameter fecal coliform.
20. Flow – means the total volume of discharge in a 24-hour period.
21. FWPCA - means the Federal Water Pollution Control Act.
22. Geometric Mean – means the Nth root of the product of the individual values of any set of values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered one (1).
23. Grab Sample – means a single influent or effluent portion which is not a composite sample. The sample(s) shall be collected at the period(s) most representative of the discharge.
24. Indirect Discharger – means a nondomestic discharger who discharges pollutants to a publicly owned treatment works or a privately owned treatment facility operated by another person.
25. Industrial User – means those industries identified in the Standard Industrial Classification manual, Bureau of the Budget 1967, as amended and supplemented, under the category "Division D – Manufacturing" and such other classes of significant waste producers as, by regulation, the Director deems appropriate.
26. MGD – means million gallons per day.
27. Monthly Average – means, other than for fecal coliform bacteria, the arithmetic mean of the entire composite or grab samples taken for the daily discharges collected in one month period. The monthly average for fecal coliform bacteria is the geometric mean of daily discharge samples collected in a one month period. The monthly average for flow is the arithmetic mean of all flow measurements taken in a one month period.

28. New Discharger – means a person, owning or operating any building, structure, facility or installation:
  - a. from which there is or may be a discharge of pollutants;
  - b. that did not commence the discharge of pollutants prior to August 13, 1979, and which is not a new source; and
  - c. which has never received a final effective NPDES permit for dischargers at that site.
29. NH<sub>3</sub>-N – means the pollutant parameter ammonia, measured as nitrogen.
30. Permit application - means forms and additional information that is required by ADEM Administrative Code Rule 335-6-6-.08 and applicable permit fees.
31. Point source - means "any discernible, confined and discrete conveyance, including but not limited to any pipe, channel, ditch, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, . . . from which pollutants are or may be discharged." Section 502(14) of the FWPCA, 33 U.S.C. Section 1362(14).
32. Pollutant - includes for purposes of this permit, but is not limited to, those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and those effluent characteristics specified in Provision I. A. of this permit.
33. Privately Owned Treatment Works – means any devices or system which is used to treat wastes from any facility whose operator is not the operator of the treatment works, and which is not a "POTW".
34. Publicly Owned Treatment Works – means a wastewater collection and treatment facility owned by the State, municipality, regional entity composed of two or more municipalities, or another entity created by the State or local authority for the purpose of collecting and treating municipal wastewater.
35. Receiving Stream – means the "waters" receiving a "discharge" from a "point source".
36. Severe property damage - means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
37. Significant Source – means a source which discharges 0.025 MGD or more to a POTW or greater than five percent of the treatment work's capacity, or a source which is a primary industry as defined by the U.S. EPA or which discharges a priority or toxic pollutant.
38. Solvent – means any virgin, used or spent organic solvent(s) identified in the F-Listed wastes (F001 through F005) specified in 40 CFR 261.31 that is used for the purpose of solubilizing other materials.
39. TKN – means the pollutant parameter Total Kjeldahl Nitrogen.
40. TON – means the pollutant parameter Total Organic Nitrogen.
41. TRC – means Total Residual Chlorine.
42. TSS – means the pollutant parameter Total Suspended Solids.
43. 24HC – means 24-hour composite sample, including any of the following:
  - a. the mixing of at least 12 equal volume samples collected at constant time intervals of not more than 2 hours over a period of 24 hours;
  - b. a sample collected over a consecutive 24-hour period using an automatic sampler composite to one sample. As a minimum, samples shall be collected hourly and each shall be no more than one twenty-fourth (1/24) of the total sample volume collected; or
  - c. a sample collected over a consecutive 24-hour period using an automatic composite sampler composited proportional to flow.
44. Upset - means an exceptional incident in which there is an unintentional and temporary noncompliance with technology-based permit discharge limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

45. Waters - means "[a]ll waters of any river, stream, watercourse, pond, lake, coastal, ground or surface water, wholly or partially within the state, natural or artificial. This does not include waters which are entirely confined and retained completely upon the property of a single individual, partnership or corporation unless such waters are used in interstate commerce." Code of Alabama 1975, Section 22-22-1(b)(2). Waters "include all navigable waters" as defined in Section 502(7) of the FWPCA, 22 U.S.C. Section 1362(7), which are within the State of Alabama.
46. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
47. Weekly (7-day and calendar week) Average – is the arithmetic mean of all samples collected during a consecutive 7-day period or calendar week, whichever is applicable. The calendar week is defined as beginning on Sunday and ending on Saturday. Weekly averages shall be calculated for all calendar weeks with Saturdays in the month. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for the calendar week shall be included in the data for the month that contains the Saturday.

#### **I. SEVERABILITY**

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**PART IV      ADDITIONAL REQUIREMENTS, CONDITIONS, AND LIMITATIONS**

**A.      BEST MANAGEMENT PRACTICES (BMP) PLAN REQUIREMENTS**

1.      BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) Plan which prevents, or minimizes the potential for, the release of pollutants from ancillary activities, including material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas, to the waters of the State through plant site runoff; spillage or leaks; sludge or waste disposal; or drainage from raw material storage.

2.      Plan Content

The permittee shall prepare and implement a best management practices (BMP) plan, which shall:

- a.      Establish specific objectives for the control of pollutants:
  - (1) Each facility component or system shall be examined for its potential for causing a release of significant amounts of pollutants to waters of the State due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.
  - (2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g. precipitation), or circumstances to result in significant amounts of pollutants reaching surface waters, the plan should include a prediction of the direction, rate of flow, and total quantity of pollutants which could be discharged from the facility as a result of each condition or circumstance.
- b.      Establish specific best management practices to meet the objectives identified under paragraph a. of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the State, and identifying specific preventative or remedial measures to be implemented;
- c.      Establish a program to identify and repair leaking equipment items and damaged containment structures, which may contribute to contaminated stormwater runoff. This program must include regular visual inspections of equipment, containment structures and of the facility in general to ensure that the BMP is continually implemented and effective;
- d.      Prevent the spillage or loss of fluids, oil, grease, gasoline, etc. from vehicle and equipment maintenance activities and thereby prevent the contamination of stormwater from these substances;
- e.      Prevent or minimize stormwater contact with material stored on site;
- f.      Designate by position or name the person or persons responsible for the day to day implementation of the BMP;
- g.      Provide for routine inspections, on days during which the facility is manned, of any structures that function to prevent stormwater pollution or to remove pollutants from stormwater and of the facility in general to ensure that the BMP is continually implemented and effective;
- h.      Provide for the use and disposal of any material used to absorb spilled fluids that could contaminate stormwater;
- i.      Develop a solvent management plan, if solvents are used on site. The solvent management plan shall include as a minimum lists of the solvents on site; the disposal method of solvents used instead of dumping, such as reclamation, contract hauling; and the procedures for assuring that solvents do not routinely spill or leak into the stormwater;
- j.      Provide for the disposal of all used oils, hydraulic fluids, solvent degreasing material, etc. in accordance with good management practices and any applicable state or federal regulations;
- k.      Include a diagram of the facility showing the locations where stormwater exits the facility, the locations of any structure or other mechanisms intended to prevent pollution of stormwater or to remove pollutants from stormwater, the locations of any collection and handling systems;
- l.      Provide control sufficient to prevent or control pollution of stormwater by soil particles to the degree required to maintain compliance with the water quality standard for turbidity applicable to the waterbody(s) receiving discharge(s) under this permit;
- m.      Provide spill prevention, control, and/or management sufficient to prevent or minimize contaminated stormwater runoff. Any containment system used to implement this requirement shall be constructed of materials compatible with the substance(s) contained and shall prevent the contamination of groundwater. The containment system shall also be



capable of retaining a volume equal to 110 percent of the capacity of the largest tank for which containment is provided;

- n. Provide and maintain curbing, diking or other means of isolating process areas to the extent necessary to allow segregation and collection for treatment of contaminated stormwater from process areas;
- o. Be reviewed by plant engineering staff and the plant manager; and
- p. Bear the signature of the plant manager.

3. Compliance Schedule

The permittee shall have reviewed (and revised if necessary) and fully implemented the BMP plan as soon as practicable but no later than six months after the effective date of this permit.

4. Department Review

- a. When requested by the Director or his designee, the permittee shall make the BMP available for Department review.
- b. The Director or his designee may notify the permittee at any time that the BMP is deficient and require correction of the deficiency.
- c. The permittee shall correct any BMP deficiency identified by the Director or his designee within 30 days of receipt of notification and shall certify to the Department that the correction has been made and implemented.

5. Administrative Procedures

- a. A copy of the BMP shall be maintained at the facility and shall be available for inspection by representatives of the Department.
- b. A log of the routine inspection required above shall be maintained at the facility and shall be available for inspection by representatives of the Department. The log shall contain records of all inspections performed for the last three years and each entry shall be signed by the person performing the inspection.
- c. The permittee shall provide training for any personnel required to implement the BMP and shall retain documentation of such training at the facility. This documentation shall be available for inspection by representatives of the Department. Training shall be performed prior to the date that implementation of the BMP is required.
- d. BMP Plan Modification. The permittee shall amend the BMP plan whenever there is a change in the facility or change in operation of the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of pollutants.
- e. BMP Plan Review. The permittee shall complete a review and evaluation of the BMP plan at least once every three years from the date of preparation of the BMP plan. Documentation of the BMP Plan review and evaluation shall be signed and dated by the Plant Manager.

**B. STORMWATER FLOW MEASUREMENT AND SAMPLING REQUIREMENTS**

1. Stormwater Flow Measurement

- a. All stormwater samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches.
- b. The total volume of stormwater discharged for the event must be monitored, including the date and duration (in hours) and rainfall (in inches) for storm event(s) sampled. The duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event must be a minimum of 72 hours. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.
- c. The volume may be measured using flow measuring devices, or estimated based on a modification of the Rational Method using total depth of rainfall, the size of the drainage area serving a stormwater outfall, and an estimate of the runoff coefficient of the drainage area. This information must be recorded as part of the sampling procedure and records retained according to Part I.B. of this permit.

2. Stormwater Sampling

- a. A grab sample, if required by this permit, shall be taken during the first thirty minutes of the discharge (or as soon thereafter as practicable); and a flow-weighted composite sample, if required by this permit, shall be taken for the entire event or for the first three hours of the event.
- b. All test procedures will be in accordance with part I.B. of this permit.



## **Disclaimer**

This is an updated PDF document that allows you to type your information directly into the form, print it, and save the completed form.

Note: This form can be viewed and saved only using Adobe Acrobat Reader version 7.0 or higher, or if you have the full Adobe Professional version.

**Instructions:**

1. Type in your information
2. Save file (if desired)
3. Print the completed form
4. Sign and date the printed copy
5. Mail it to the directed contact.

## ADEM PERMIT RATIONALE

PREPARED DATE: February 22, 2018

PREPARED BY: Rachel Stanaland

Permittee Name: Umicore CSM NA  
Facility Name: Umicore Usa Inc Arab  
Permit Number: AL0027332

PERMIT IS REISSUANCE DUE TO EXPIRATION

### DISCHARGE SERIAL NUMBERS & DESCRIPTIONS:

DSN003: Storm water runoff associated with inorganic chemical manufacturing  
DSN004: Storm water runoff associated with inorganic chemical manufacturing

**INDUSTRIAL CATEGORY:** NON-CATEGORICAL

**MAJOR:** N

### STREAM INFORMATION:

Receiving Stream:	Shaol Creek
Classification:	Fish and Wildlife
River Basin:	Tennessee River Basin
7Q10:	0 cfs
303(d) List:	NO
Impairment:	NONE
TMDL:	NO

### DISCUSSION:

Umicore manufactures metallic chemical salts. In this process metals or metal compounds such as cobalt, nickel, manganese, cadmium, etc. are dissolved in acids and precipitated into chemical salts. Most of the facility operations are enclosed except for truck loading and unloading and storage of the product. The products are stored in several chemical tank farms with secondary containment. This permit is applicable for stormwater only. All process wastewater is discharged to the City of Arab's Riley Maze Creek WWTP via SID permit IU084800182.

ADEM Administrative Rule 335-6-10-.12 requires applicants to new or expanded discharges to Tier II waters demonstrate that the proposed discharge is necessary for important economic or social development in the area in which the waters are located. The application submitted by the facility is not for a new or expanded discharge. Therefore, the applicant is not required to demonstrate that the discharge is necessary for economic and social development.

EPA has not promulgated specific guidelines for the discharges covered under the proposed permit. Proposed permit limits are based on Best Professional Judgment. The proposed frequencies are based on a review of site specific conditions and an evaluation of similar facilities.

003S:

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ
Nitrogen, Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Bromide (As Br)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

004S:

<u>Parameter</u>	<u>Monthly Avg Loading</u>	<u>Daily Max Loading</u>	<u>Daily Min Concentration</u>	<u>Monthly Avg Concentration</u>	<u>Daily Max Concentration</u>	<u>Sample Frequency</u>	<u>Sample Type</u>	<u>Basis*</u>
BOD, 5-Day (20 Deg. C)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
pH	-	-	REPORT S.U.	-	REPORT S.U.	Semi-Annually	Grab	BPJ
Solids, Total Suspended	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Oil & Grease	-	-	-	-	15 mg/l	Semi-Annually	Grab	BPJ

Nitrogen, Total (As N)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Phosphorus, Total (As P)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Nickel, Total (As Ni)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Flow, In Conduit or Thru Treatment Plant	-	REPORT MGD	-	-	-	Semi-Annually	Estimate	BPJ
Bromide (As Br)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ
Chemical Oxygen Demand (COD)	-	-	-	-	REPORT mg/l	Semi-Annually	Grab	BPJ

\*Basis for Permit Limitation

- BPJ – Best Professional Judgment
- WQBEL – Water Quality Based Effluent Limits
- EGL – Federal Effluent Guideline Limitations
- 303(d) – 303(d) List of Impaired Waters
- TMDL – Total Maximum Daily Load Requirements

## **Discussion**

### **Best Professional Judgment (BPJ)**

The parameters of concern for this facility are based on the parameters of concern listed in EPA form 2F and from the current permit. These parameters are consistent with similar facilities in the state and have been proven to be reflective of the operations at this facility. The parameters with specific limits are discussed below:

#### **Oil & Grease**

The daily maximum limit for Oil and Grease should prevent the occurrence of a visible sheen in the stream and has been shown to be achievable through the use of proper BMPs.

#### **Cadmium**

Cadmium has been removed from the permit. The discharge monitoring reports and the application provided by the facility show that cadmium has not been detected in the storm water in recent years.

Best Management Practices (BMPs) are believed to be the most effective way to control the contamination of stormwater from areas of industrial activities. This facility is required to maintain a BMP plan. The requirements of the BMP plan call for minimization of stormwater contact with waste materials, products and by-products, and for prevention of spills or loss of fluids from equipment maintenance activities. The effectiveness of the BMPs will be measured through the monitoring of the pollutants of concern.

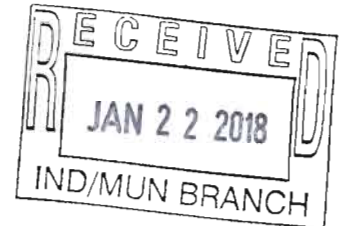
### **Schedule of Compliance**

The Schedule of Compliance in the permit will require the Permittee to develop and submit to the Department an engineering report which addresses the measures to be implemented, and a schedule of implementation, to prevent or minimize sources of Total Suspended Solids (TSS) in the storm water discharges to Shoal Creek.



01/08/17

Alabama Department of Environmental Management  
Water Division  
P.O. Box 301463  
Montgomery, Alabama 36130-1463



Re: Umicore CSM-NA  
NPDES Permit AL0027332  
Notice of Violation-Permit Renewal

*R #18-45098*

Dear Mrs. Stanaland,

In response to the Notice of Violation received 12/12/17, please see enclosed NPDES Permit AL0027332 application for renewal, which includes ADEM Form 187, EPA Form 3510-2F, EPA 3510-1, maps, and applicable fee of \$5,615.00.

Please contact me with any questions.

Sincerely,

A handwritten signature in blue ink that reads "Cindy Tidmore".

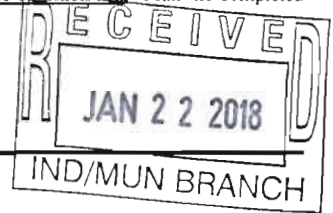
Cindy Tidmore  
EHS Manager  
256-931-3839  
cynthia.tidmore@am.umicore.com



**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (ADEM)**  
**NPDES INDIVIDUAL PERMIT APPLICATION**  
**SUPPLEMENTARY INFORMATION FOR INDUSTRIAL FACILITIES**

**Instructions:** This form should be used to submit the required supplementary information for an application for an NPDES individual permit for industrial facilities. The completed application should be submitted to ADEM in duplicate. If insufficient space is available to address any item, please continue on an attached sheet of paper. Please mark "N/A" in the appropriate box when an item is not applicable to the applicant. Please type or print legibly in blue or black ink. Mail the completed application to:

ADEM-Water Division  
Industrial Section  
P O Box 301463  
Montgomery, AL 36130-1463



**PURPOSE OF THIS APPLICATION**

- ☐ Initial Permit Application for New Facility\*  
☐ Modification of Existing Permit  
☐ Revocation & Reissuance of Existing Permit

- ☐ Initial Permit Application for Existing Facility\*  
☒ Reissuance of Existing Permit

\* An application for participation in the ADEM's Electronic Environmental (E2) Reporting must be submitted to allow permittee to electronically submit reports as required.

**SECTION A - GENERAL INFORMATION**

1. Facility Name: Umicore CSM NA (Arab)

a. Operator Name: Umicore USA, Inc.

b. Is the operator identified in A.1.a, the owner of the facility? ☒ Yes ☐ No

If no, provide name and address of the operator and submit information indicating the operator's scope of responsibility for the facility.

2. NPDES Permit Number: AL 0 0 2 7 3 3 2 (not applicable if initial permit application)

3. SID Permit Number (if applicable): IU 0 8 - 4 8 - 0 0 1 8 2

4. NPDES General Permit Number (if applicable): ALG N A

5. Facility Physical Location: (Attach a map with location marked; street, route no. or other specific identifier)

Street: 1951 Guntersville Road

City: Arab County: Marshall State: Alabama Zip: 35016

Facility Location (Front Gate): Latitude: 34.343817 Longitude: 86.455826

6. Facility Mailing Address: 1951 Guntersville Road

City: Arab County: Marshall State: Alabama Zip: 35016

7. Responsible Official (as described on the last page of this application):

Name and Title: Carole Mehl, Plant Manager

Address: 1951 Guntersville Road

City: Arab State: Alabama Zip: 35016

Phone Number: 256-931-3824

Email Address: carole.mehl@am.umicore.com

8. Designated Facility Contact:

Name and Title: Cindy Tidmore, EHS & Lab Manager

Phone Number: 256-931-3839

Email Address: cynthia.tidmore@am.umicore.com

9. Designated Discharge Monitoring Report (DMR) Contact:

Name and Title: Cindy Tidmore, EHS & Lab Manager

Phone Number: 256-931-3839

Email Address: cynthia.tidmore@am.umicore.com

10. Type of Business Entity:

- ☒ Corporation    ☐ General Partnership    ☐ Limited Partnership    ☐ Limited Liability Company    ☐ Sole Proprietorship  
☐ Other (Please Specify) \_\_\_\_\_

11. Complete this section if the Applicant's business entity is a Corporation

a) Location of Incorporation:

Address: \_\_\_\_\_

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

b) Parent Corporation of Applicant:

Name: Umicore USA, Inc.

Address: 3600 Glenwood Avenue

City: Raleigh State: North Carolina Zip: 27612-4945

c) Subsidiary Corporation(s) of Applicant:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

d) Corporate Officers:

Name: Galen Jones, President of Umicore USA, Inc.

Address: 3600 Glenwood Avenue

City: Raleigh State: North Carolina Zip: 27612-4945

Name: Carole Mehl, Plant Manager

Address: 1951 Guntersville Road

City: Arab State: Alabama Zip: 35016

e) Agent designated by the corporation for purposes of service:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

12. If the Applicant's business entity is a Partnership, please list the general partners.

Name: \_\_\_\_\_ Name: \_\_\_\_\_

Address: \_\_\_\_\_ Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

13. If the Applicant's business entity is a Proprietorship, please enter the proprietor's information.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

14. Permit numbers for Applicant's previously issued NPDES Permits and identification of any other State of Alabama Environmental Permits presently held by the Applicant, its parent corporation, or subsidiary corporations within the State of Alabama:

<u>Permit Name</u>	<u>Permit Number</u>	<u>Held By</u>
NPDES	AL0027332	ADEM- Umicore CSM NA
SID	IU084800182	ADEM- Umicore CSM NA
Air Permits	See Attachment A	ADEM- Umicore CSM NA
NPDES (Construction)	ALR10BBPT	ADEM- Umicore CSM NA
_____	_____	_____

15. Identify all Administrative Complaints, Notices of Violation, Directives, Administrative Orders, or Litigation concerning water pollution, if any, against the Applicant, its parent corporation or subsidiary corporations within the State of Alabama within the past five years (attach additional sheets if necessary):

<u>Facility Name</u>	<u>Permit Number</u>	<u>Type of Action</u>	<u>Date of Action</u>
Umicore CSM NA	AL0027332	NOV	08/06/15
Umicore CSM NA	ALR10BBPT	NOV	5/22/17
Umicore CSM NA	AL0027332	NOV	12/12/17
_____	_____	_____	_____
_____	_____	_____	_____

## SECTION B – BUSINESS ACTIVITY

1. Indicate applicable Standard Industrial Classification (SIC) Codes for all processes. If more than one applies, list in order of importance:

- a. 2819
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_
- f. \_\_\_\_\_

2. If your facility conducts or will be conducting any of the processes listed below (regardless of whether they generate wastewater, waste sludge, or hazardous waste), place a check beside the category of business activity (check all that apply):

#### Industrial Categories

- |   |  |
|---|--|
| <input type="checkbox"/> Aluminum Forming                                 | <input type="checkbox"/> Metal Molding and Casting                 |
| <input type="checkbox"/> Asbestos Manufacturing                           | <input type="checkbox"/> Metal Products                            |
| <input type="checkbox"/> Battery Manufacturing                            | <input type="checkbox"/> Nonferrous Metals Forming                 |
| <input type="checkbox"/> Can Making                                       | <input type="checkbox"/> Nonferrous Metals Manufacturing           |
| <input type="checkbox"/> Canned and Preserved Fruit and Vegetables        | <input type="checkbox"/> Oil and Gas Extraction                    |
| <input type="checkbox"/> Canned and Preserved Seafood                     | <input type="checkbox"/> Organic Chemicals Manufacturing           |
| <input type="checkbox"/> Cement Manufacturing                             | <input type="checkbox"/> Paint and Ink Formulating                 |
| <input type="checkbox"/> Centralized Waste Treatment                      | <input type="checkbox"/> Paving and Roofing Manufacturing          |
| <input type="checkbox"/> Carbon Black                                     | <input type="checkbox"/> Pesticides Manufacturing                  |
| <input type="checkbox"/> Coal Mining                                      | <input type="checkbox"/> Petroleum Refining                        |
| <input type="checkbox"/> Coil Coating                                     | <input type="checkbox"/> Phosphate Manufacturing                   |
| <input type="checkbox"/> Copper Forming                                   | <input type="checkbox"/> Photographic                              |
| <input type="checkbox"/> Electric and Electronic Components Manufacturing | <input type="checkbox"/> Pharmaceutical                            |
| <input type="checkbox"/> Electroplating                                   | <input type="checkbox"/> Plastic & Synthetic Materials             |
| <input type="checkbox"/> Explosives Manufacturing                         | <input type="checkbox"/> Plastics Processing Manufacturing         |
| <input type="checkbox"/> Feedlots   | <input type="checkbox"/> Porcelain Enamel                          |
| <input type="checkbox"/> Ferroalloy Manufacturing                         | <input type="checkbox"/> Pulp, Paper, and Fiberboard Manufacturing |
| <input type="checkbox"/> Fertilizer Manufacturing                         | <input type="checkbox"/> Rubber                                    |
| <input type="checkbox"/> Foundries (Metal Molding and Casting)            | <input type="checkbox"/> Soap and Detergent Manufacturing          |
| <input type="checkbox"/> Glass Manufacturing                              | <input type="checkbox"/> Steam and Electric                        |
| <input type="checkbox"/> Grain Mills                                      | <input type="checkbox"/> Sugar Processing                          |
| <input type="checkbox"/> Gum and Wood Chemicals Manufacturing             | <input type="checkbox"/> Textile Mills                             |
| <input type="checkbox"/> Inorganic Chemicals                              | <input type="checkbox"/> Timber Products                           |
| <input type="checkbox"/> Iron and Steel                                   | <input type="checkbox"/> Transportation Equipment Cleaning         |
| <input type="checkbox"/> Leather Tanning and Finishing                    | <input type="checkbox"/> Waste Combustion                          |
| <input type="checkbox"/> Metal Finishing                                  | <input type="checkbox"/> Other (specify) _____                     |
| <input type="checkbox"/> Meat Products                                    |  |

A facility with processes inclusive in these business areas may be covered by Environmental Protection (EPA) categorical standards. These facilities are termed "categorical users" and should skip to question 2 of Section C.

3. Give a brief description of all operations at this facility including primary products or services (attach additional sheets if necessary):

1) React cobalt, nickel and manganese with acetic acid, nitric acid, phosphoric acid, hydrochloric acid, hydrobromic acid to produce solutions and crystals of the resulting salts that are shipped to customers. 2) Recycling Co and Mn from fly ash received from customers into Co/Mn acetate solution. 3) Cobalt manganese oxide processing that involves drying and blending of different raw materials prior to being sold to customers.

### SECTION C – WASTEWATER DISCHARGE INFORMATION

Facilities that checked activities in B.2 and are considered Categorical Industrial Users should skip to C.2 of this section.

1. **For Non-Categorical Users Only:** Provide wastewater flows for each of the processes or proposed processes. Using the process flow schematic (Figure 1), enter the description that corresponds to each process. **(The flow schematic should include all treatment units as well as monitoring and discharge points).** [New facilities should provide estimates for each discharge.]

Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
NA- Storm Water Only			

If batch discharge occurs or will occur, indicate: [new facilities may estimate.]

- a. Number of batch discharges: \_\_\_\_\_ per day
- b. Average discharge per batch: \_\_\_\_\_ (GPD)
- c. Time of batch discharges \_\_\_\_\_ at \_\_\_\_\_  
(days of week) (hours of day)
- d. Flow rate: \_\_\_\_\_ gallons/minute
- e. Percent of total discharge: \_\_\_\_\_

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow
_____	_____	_____
_____	_____	_____

**2. Complete this Section only if you are subject to Categorical Standards and plan to directly discharge the associated wastewater to a water of the State.** If Categorical wastewater is discharged exclusively via an indirect discharge to a public or privately-owned treatment works, check "Yes" in the appropriate space below and proceed directly to part 2.c .

☒ Yes

For Categorical Users: Provide the wastewater discharge flows or production (whichever is applicable by the effluent guidelines) for each of your processes or proposed processes. Using the process flow schematic (Figure 1, pg 14), enter the description that corresponds to each process. [New facilities should provide estimates for each discharge.]

2a.

Regulated Process	Applicable Category	Applicable Subpart	Type of Discharge Flow (batch, continuous, intermittent)
NA- Storm Water Only	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2b.

Process Description	Last 12 Months (gals/day), (lbs/day), etc. Highest Month Average*	Highest Flow Year of Last 5 (gals/day), (lbs/day), etc. Monthly Average*	Discharge Type (batch, continuous, intermittent)
NA- Storm Water Only	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

\* Reported values should be expressed in units of the applicable Federal production-based standard. For example, flow (MGD), production (pounds per day), etc.

If batch discharge occurs or will occur, indicate: [new facilities may estimate.]

- a. Number of batch discharges: \_\_\_\_\_ per day
- b. Average discharge per batch: \_\_\_\_\_ (GPD)
- c. Time of batch discharges \_\_\_\_\_ at \_\_\_\_\_  
(days of week) (hours of day)
- d. Flow rate: \_\_\_\_\_ gallons/minute
- e. Percent of total discharge: \_\_\_\_\_



2c.

Non categorical Process Description	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow	Discharge Type (batch, continuous, intermittent)
NA- Storm Water Only			

If batch discharge occurs or will occur, indicate: [new facilities may estimate.]

- a. Number of batch discharges: \_\_\_\_\_ per day
- b. Average discharge per batch: \_\_\_\_\_ (GPD)
- c. Time of batch discharges \_\_\_\_\_ at \_\_\_\_\_  
(days of week) (hours of day)
- d. Flow rate: \_\_\_\_\_ gallons/minute
- e. Percent of total discharge: \_\_\_\_\_

2d.

Non-Process Discharges (e.g. non-contact cooling water)	Last 12 Months (gals/day) Highest Month Avg. Flow	Highest Flow Year of Last 5 (gals/day) Monthly Avg. Flow
NA- Storm Water Only		

**All Applicants must complete C.3 – C.6.**

3. Do you share an outfall with another facility? ☐ Yes ☒ No (If no, continue to C.4)

For each shared outfall, provide the following:

Applicant's Outfall No.	Name of Other Permittee/Facility	NPDES Permit No.	Where is sample collected by Applicant?

4. Do you have, or plan to have, automatic sampling equipment or continuous wastewater flow metering equipment at this facility?

**Current:** Flow Metering ☐ Yes ☒ No ☐ N/A  
 Sampling Equipment ☐ Yes ☒ No ☐ N/A

**Planned:** Flow Metering ☐ Yes ☒ No ☐ N/A  
 Sampling Equipment ☐ Yes ☒ No ☐ N/A

If so, please attach a schematic diagram of the sewer system indicating the present or future location of this equipment and describe the equipment below:

5. Are any process changes or expansions planned during the next three years that could alter wastewater volumes or characteristics?  
☒ Yes ☐ No (If no, continue to C.6)

Briefly describe these changes and their anticipated effects on the wastewater volume and characteristics:

Renovation of Umicore over the next 5-7 years to include: the construction of a new waste water treatment plant and renovation of production buildings.



6. List the trade name and chemical composition of all biocides and corrosion inhibitors used:

Trade Name	Chemical Composition
NA	

For each biocide and/or corrosion inhibitor used, please include the following information:

- (1) 96-hour median tolerance limit data for organisms representative of the biota of the waterway into which the discharge will ultimately reach,
- (2) quantities to be used,
- (3) frequencies of use,
- (4) proposed discharge concentrations, and
- (5) EPA registration number, if applicable

#### SECTION D – WATER SUPPLY

Water Sources (check as many as are applicable):

- ☐ Private Well ☐ Surface Water  
☒ Municipal Water Utility (Specify City): Arab ☐ Other (Specify): \_\_\_\_\_

**IF MORE THAN ONE WELL OR SURFACE INTAKE, PROVIDE DATA FOR EACH ON AN ATTACHMENT**

City: 0.023 MGD\* Well: \_\_\_\_\_ MGD\* Well Depth: \_\_\_\_\_ Ft. Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Surface Intake Volume: \_\_\_\_\_ MGD\* Intake Elevation in Relation to Bottom: \_\_\_\_\_ Ft.

Intake Elevation: \_\_\_\_\_ Ft. Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

Name of Surface Water Source: \_\_\_\_\_

\* MGD – Million Gallons per Day

#### Cooling Water Intake Structure Information

**Complete D.1 and D.2 if your water supply is provided by an outside source and not by an onsite water intake structure? (e.g., another industry, municipality, etc...)**

1. Does the provider of your source water operate a surface water intake? Yes ☒ No ☐  
(If yes, continue, if no, go to Section E.)
- a) Name of Provider: City of Arab Water Works b) Location of Provider: Arab Alabama, Marshall County
- c) Latitude: +34 18 56 58 Longitude: -86 30 7 41
2. Is the provider a public water system (defined as a system which provides water to the public for human consumption or which provides only treated water, not raw water)? ☒ Yes ☐ No (If yes, go to Section E, if no, continue.)

**Only to be completed if you have a cooling water intake structure or the provider of your water supply uses an intake structure and does not treat the raw water.**

3. Is any water withdrawn from the source water used for cooling? ☐ Yes ☐ No
4. Using the average monthly measurements over any 12-month period, approximately what percentage of water withdrawn is used exclusively for cooling purposes? \_\_\_\_\_ %
5. Does the cooling water consist of treated effluent that would otherwise be discharged? ☐ Yes ☐ No  
(If yes, go to Section E, if no, complete D.6 – D.17)
6. a. Is the cooling water used in a once-through cooling system? ☐ Yes ☐ No
- b. Is the cooling water used in a closed cycle cooling system? ☐ Yes ☐ No

7. When was the intake installed? \_\_\_\_\_  
(Please provide dates for all major construction/installation of intake components including screens)
8. What is the maximum intake volume? \_\_\_\_\_  
(maximum pumping capacity in gallons per day)
9. What is the average intake volume? \_\_\_\_\_  
(average intake pump rate in gallons per day average in any 30-day period)
10. What is the actual intake flow (AIF) as defined in 40 CFR §125.92(a)? \_\_\_\_\_ MGD
11. How is the intake operated? (e.g., continuously, intermittently, batch) \_\_\_\_\_
12. What is the mesh size of the screen on your intake? \_\_\_\_\_
13. What is the intake screen flow-through area? \_\_\_\_\_
14. What is the through-screen design intake flow velocity? \_\_\_\_\_ ft/sec
15. What is the through-screen actual velocity (in ft/sec)? \_\_\_\_\_ ft/sec
16. What is the mechanism for cleaning the screen? (e.g., does it rotate for cleaning) \_\_\_\_\_
17. Do you have any additional fish detraction technology on your intake? ☐ Yes ☐ No
18. Have there been any studies to determine the impact of the intake on aquatic organisms? ☐ Yes ☐ No (If yes, please provide.)
19. Attach a site map showing the location of the water intake in relation to the facility, shoreline, water depth, etc.

#### SECTION E – WASTE STORAGE AND DISPOSAL INFORMATION

Provide a description of the location of all sites involved in the storage of solids or liquids that could be accidentally discharged to a water of the state, either directly or indirectly via such avenues as storm water drainage, municipal wastewater systems, etc., which are located at the facility for which the NPDES application is being made. Where possible, the location should be noted on a map and included with this application:

Description of Waste	Description of Storage Location
See attachment B	

Provide a description of the location of the ultimate disposal sites of solid or liquid waste by-products (such as sludges) from any wastewater treatment system located at the facility.

Description of Waste	Quantity (lbs/day)	Disposal Method*
Waste Water	155319 lbs/day	SID permitted discharge to Arab POTW
Waste Water Treatment Filter Cake	500-800 lbs/day	Consumed as raw material in FRIT production

\*Indicate which wastes identified above are disposed of at an off-site treatment facility and which are disposed of on-site. If any wastes are sent to an off-site centralized waste treatment facility, identify the waste and the facility.

#### SECTION F – COASTAL ZONE INFORMATION

Is the discharge(s) located within the 10-foot elevation contour and within the limits of Mobile or Baldwin County? ☐ Yes ☐ No  
If yes, complete items F.1 – F.12:

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 1. Does the project require new construction? .....         | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will the project be a source of new air emissions? ..... | <input type="checkbox"/> | <input type="checkbox"/> |

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 3. Does the project involve dredging and/or filling of a wetland area or water way? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| If Yes, has the Corps of Engineers (COE) permit been received? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| COE Project No. ....  |                          |                          |
| 4. Does the project involve wetlands and/or submersed grassbeds? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Are oyster reefs located near the project site? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| If Yes, include a map showing project and discharge location with respect to oyster reefs   |                          |                          |
| 6. Does the project involve the site development, construction and operation of an energy facility as defined in ADEM Admin. Code r. 335-8-1-.02(bb)? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Does the project involve mitigation of shoreline or coastal area erosion? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Does the project involve construction on beaches or dune areas? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Will the project interfere with public access to coastal waters? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Does the project lie within the 100-year floodplain? .....  | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Does the project involve the registration, sale, use, or application of pesticides? .....   | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Does the project propose or require construction of a new well or to alter an existing groundwater well to pump more than 50 gallons per day (GPD)? ..... | <input type="checkbox"/> | <input type="checkbox"/> |
| If yes, has the applicable permit for groundwater recovery or for groundwater well installation been obtained? .....  | <input type="checkbox"/> | <input type="checkbox"/> |

## SECTION G – ANTI-DEGRADATION EVALUATION

In accordance with 40 CFR §131.12 and the ADEM Admin. Code r. 335-6-10-.04 for anti-degradation, the following information must be provided, if applicable. It is the applicant's responsibility to demonstrate the social and economic importance of the proposed activity. If further information is required to make this demonstration, attach additional sheets to the application.

1. Is this a new or increased discharge that began after April 3, 1991?      ☐ Yes    ☒ No  
     If yes, complete G.2 below. If no, go to Section H.
2. Has an Anti-Degradation Analysis been previously conducted and submitted to the Department for the new or increased discharge referenced in G.1?    ☐ Yes    ☐ No

If yes, do not complete this section. If no, and the discharge is to a Tier II waterbody as defined in ADEM Admin. Code r. 335-6-10-.12(4), complete G.2.A – G.2.F below and ADEM Forms 311 and 313 (attached). ADEM Form 313 must be provided for each alternative considered technically viable.

Information required for new or increased discharges to high quality waters:

A. What environmental or public health problem will the discharger be correcting?

\_\_\_\_\_

B. How much will the discharger be increasing employment (at its existing facility or as the result of locating a new facility)?

\_\_\_\_\_

C. How much reduction in employment will the discharger be avoiding?

\_\_\_\_\_

D. How much additional state or local taxes will the discharger be paying?

\_\_\_\_\_

E. What public service to the community will the discharger be providing?

\_\_\_\_\_

F. What economic or social benefit will the discharger be providing to the community?

\_\_\_\_\_

## SECTION H – EPA Application Forms

All Applicants must submit EPA permit application forms. More than one application form may be required from a facility depending on the number and types of discharges or outfalls found. The EPA application forms are found on the Department's website at <http://www.adem.alabama.gov/programs/water/waterforms.cnt>. The EPA application forms must be submitted in duplicate as follows:

1. All applicants must submit Form 1.
2. Applicants for existing industrial facilities (including manufacturing facilities, commercial facilities, mining activities, and silvicultural activities) which discharge process wastewater must submit Form 2C.
3. Applicants for new industrial facilities which propose to discharge process wastewater must submit Form 2D.
4. Applicants for new and existing industrial facilities which discharge only non-process wastewater (i.e., non-contact cooling water and/or sanitary wastewater) must submit Form 2E.
5. Applicants for new and existing facilities whose discharge is composed entirely of storm water associated with industrial activity must submit Form 2F, unless exempted by § 122.26(c)(1)(ii). If the discharge is composed of storm water and non-storm water, the applicant must also submit Forms 2C, 2D, and/or 2E, as appropriate (in addition to Form 2F).

## SECTION I – ENGINEERING REPORT/BMP PLAN REQUIREMENTS

See ADEM 335-6-6-.08(i) & (j)

## SECTION J– RECEIVING WATERS

Outfall No.	Receiving Water(s)	303(d) Segment?		Included in TMDL?*	
DSN003S	Shoal Creek	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
DSN004S	Shoal Creek	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

\*If a TMDL Compliance Schedule is requested, the following should be attached as supporting documentation:

- (1) Justification for the requested Compliance Schedule (e.g. time for design and installation of control equipment, etc.);
- (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department (sample collection dates, analytical results (mass and concentration), methods utilized, MDL/ML, etc. should be submitted as available);
- (3) Requested interim limitations, if applicable;
- (4) Date of final compliance with the TMDL limitations; and,
- (5) Any other additional information available to support requested compliance schedule.

## SECTION K – APPLICATION CERTIFICATION

The information contained in this form must be certified by a responsible official as defined in ADEM Administrative Code r. 335-6-6-.09 "signatories to permit applications and reports" (see below).

*"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."*

Signature of Responsible Official: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Name and Title: Carole Mehl, Plant Manager

*If the Responsible Official signing this application is not identified in Section A.7, provide the following information:*

Mailing Address: 1951 Guntersville Road

City: Arab

State: Alabama

Zip: 35016

Phone Number: 256-931-3824

Email Address: carole.mehl@am.umicore.com

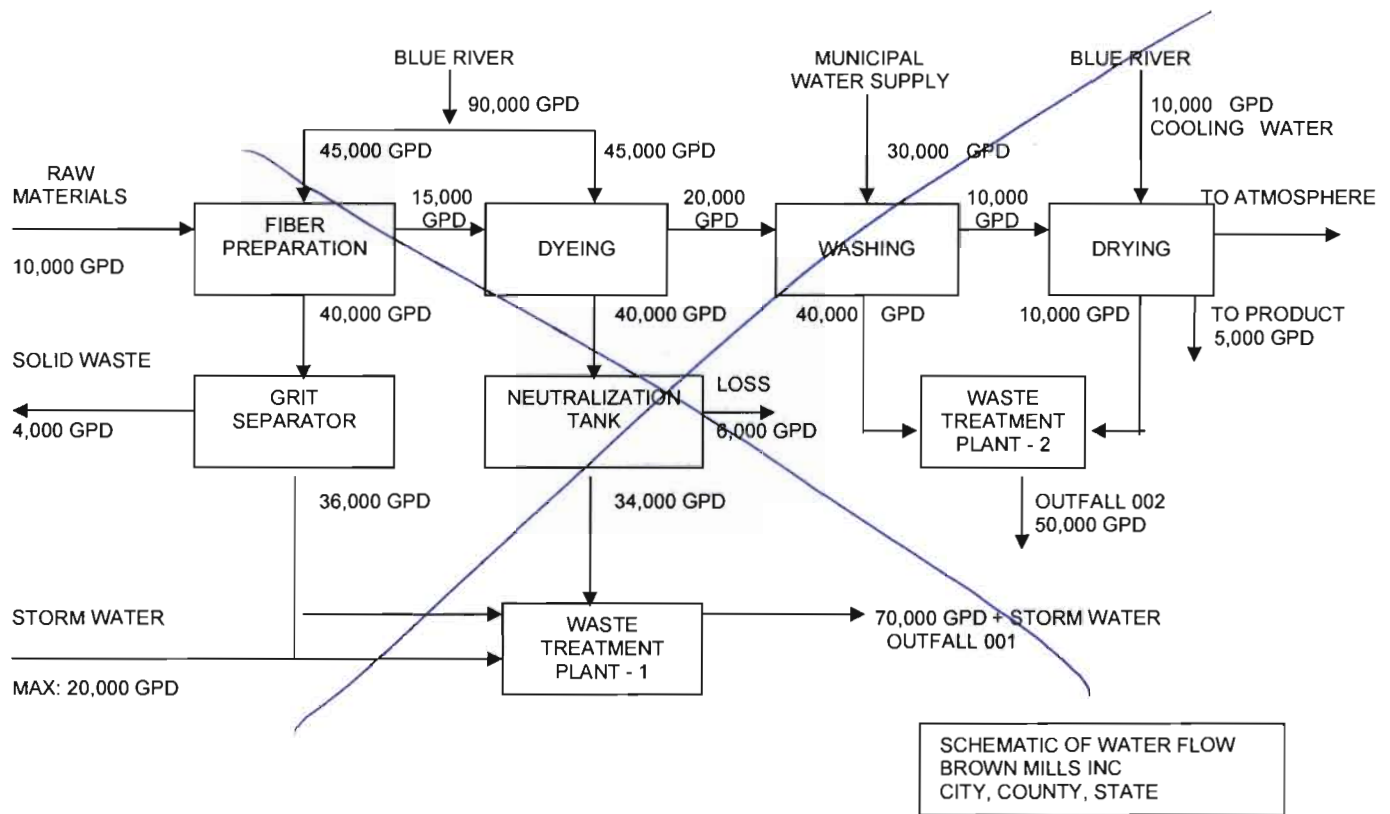
### 335-6-6-.09 SIGNATORIES TO PERMIT APPLICATIONS AND REPORTS.

(1) The application for an NPDES permit shall be signed by a responsible official, as indicated below:

- (a) In the case of a corporation, by a principal executive officer of at least the level of vice president, or a manager assigned or delegated in accordance with corporate procedures, with such delegation submitted in writing if required by the Department, who is responsible for manufacturing, production, or operating facilities and is authorized to make management decisions which govern the operation of the regulated facility;
- (b) In the case of a partnership, by a general partner;
- (c) In the case of a sole proprietorship, by the proprietor; or
- (d) In the case of a municipal, state, federal, or other public entity, by either a principal executive officer, or ranking elected official.

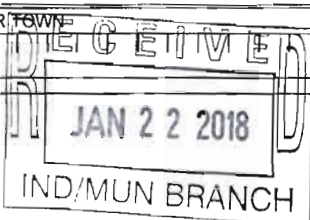


**FIGURE 1**





FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER ALD031480031		T/A C D			
LABEL ITEMS		Umicore CSM-NA 1951 Guntersville Road Arab, Alabama 35016		GENERAL INSTRUCTIONS If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.					
I. EPA I.D. NUMBER		III. FACILITY NAME		V. FACILITY MAILING ADDRESS		VI. FACILITY LOCATION			
II. POLLUTANT CHARACTERISTICS		INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms.							
SPECIFIC QUESTIONS		Mark 'X'		SPECIFIC QUESTIONS		Mark 'X'			
A. Is this facility a <b>publicly owned treatment works</b> which results in a <b>discharge to waters of the U.S.?</b> (FORM 2A)		YES	NO	FORM ATTACHED	B. Does or will this facility (either existing or proposed) include a <b>concentrated animal feeding operation</b> or <b>aquatic animal production facility</b> which results in a <b>discharge to waters of the U.S.?</b> (FORM 2B)		YES	NO	FORM ATTACHED
		16	17	18			19	20	21
C. Is this a facility which currently results in <b>discharges to waters of the U.S.</b> other than those described in A or B above? (FORM 2C)			X		D. Is this a proposed facility (other than those described in A or B above) which will result in a <b>discharge to waters of the U.S.?</b> (FORM 2D)			X	
		22	23	24			25	26	27
E. Does or will this facility treat, store, or dispose of <b>hazardous wastes?</b> (FORM 3)			X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)			X	
		28	29	30			31	32	33
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)			X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)			X	
		34	35	36			37	38	39
I. Is this facility a proposed <b>stationary source</b> which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X		J. Is this facility a proposed <b>stationary source</b> which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X	
		40	41	42			43	44	45
III. NAME OF FACILITY		Umicore CSM NA							
IV. FACILITY CONTACT		A. NAME & TITLE (last, first, & title)				B. PHONE (area code & no.)			
		Mehl, Carole Plant Manager				(256) 931-3824			
V. FACILITY MAILING ADDRESS		A. STREET OR P.O. BOX							
		1951 Guntersville Road							
		B. CITY OR TOWN							
		Arab							
		C. STATE							
		AL							
		D. ZIP CODE							
		35016							
VI. FACILITY LOCATION		A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER							
		1951 Guntersville Road							
		B. COUNTY NAME							
		Marshall							
		C. CITY OR TOWN							
		Arab							
		D. STATE							
		AL							
		E. ZIP CODE							
		35016							
		F. COUNTY CODE (if known)							
		01 095							



VII. SIC CODES (4-digit, in order of priority)

### VIII. OPERATOR INFORMATION

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box: if "Other," specify.)

E. STREET OR P.O. BOXF. CITY OR TOWNX. EXISTING ENVIRONMENTAL PERMITSB. UIC (*Underground Injection of Fluids*)C. RCRA (*Hazardous Wastes*)

C	T	I																			C	T	I																			(specify)	NPDES (Construction)																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518

## XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

## XII. NATURE OF BUSINESS (provide a brief description)

Umicore CSM NA currently has three main manufacturing activities:

1. React cobalt, nickel and manganese with acetic acid, nitric acid, phosphoric acid, hydrochloric acid, hydrobromic acid to produce solutions and crystals of the resulting salts that are shipped to customers.
2. Recycling Co and Mn from fly ash received from customers into Co/Mn acetate solution.
3. Cobalt manganese oxide processing that involves drying and blending of different raw materials prior to being sold to customers.

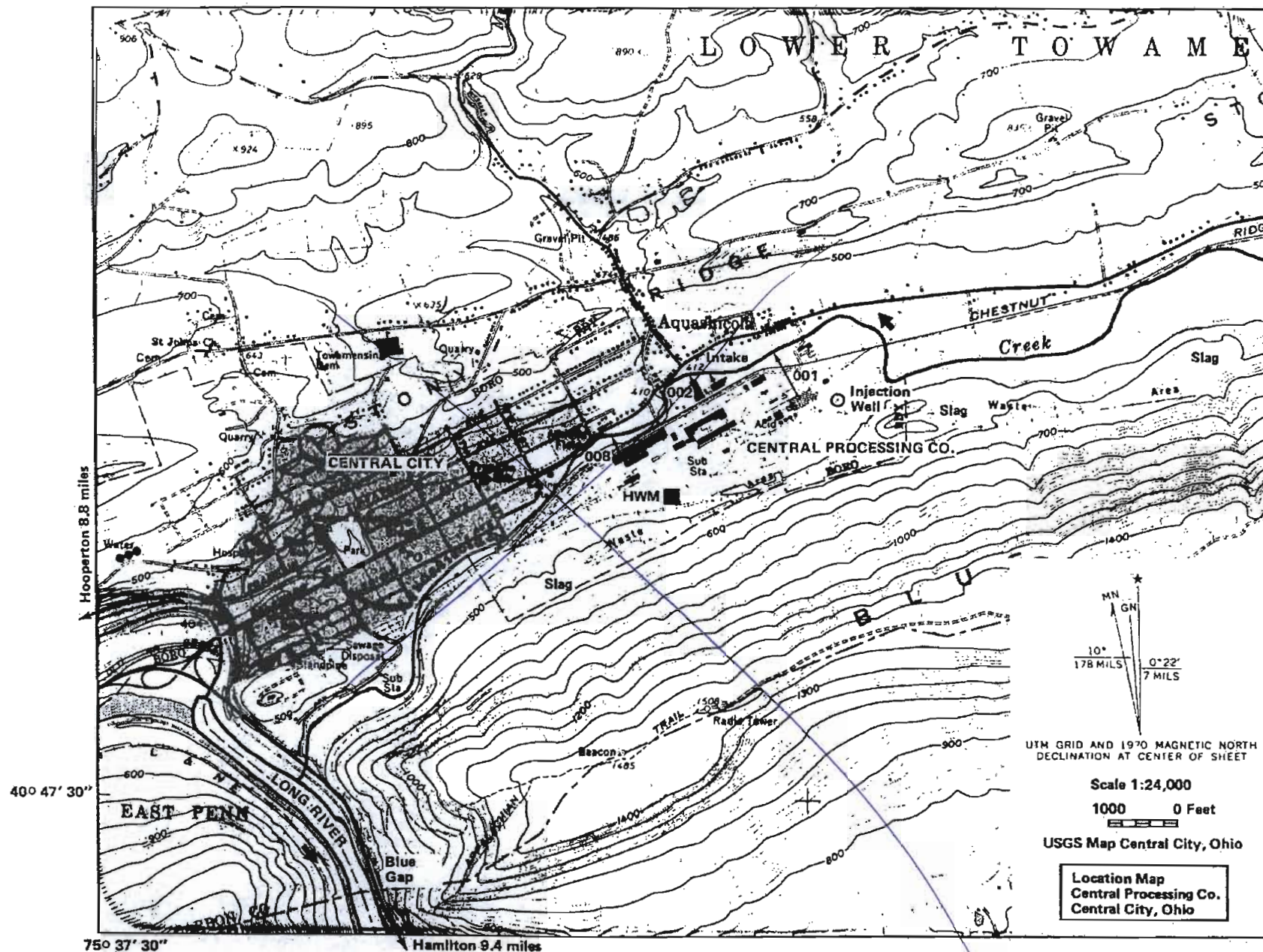
## XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

COMMENTS FOR OFFICIAL USE ONLY



FIGURE 1-1



FORM  
**2F**  
NPDES



## Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

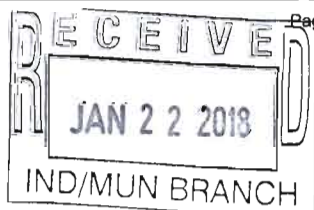
[illegible]

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

[illegible]

B: You may attach additional sheets describing any additional water pollution (or other environmental) projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.





Continued from the Front

#### IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
DSN003S	130,680 ft <sup>2</sup>	189,866 ft <sup>2</sup>	DSN004S	49,658 ft <sup>2</sup>	91,333 ft <sup>2</sup>

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

Finished solutions (consisting of acetates, nitrates, phosphates, and chlorides) and bulk chemicals (Nitric Acid, Acetic Acid, Phosphoric Acid, Sulfuric Acid, Hydrochloric Acid, Ferric Sulfate, Sodium Hydroxide, Hydrazine and Diesel Fuel) are stored in bulk storage tanks and have the potential for exposure to storm water. All bulk storage tanks are inside containment dikes and any rainwater collected inside the containment is transferred to the site's Waste Water Treatment Plant and discharged in accordance with the site's SID permit to Arab POTW. Umicore CSM NA loads and stores finished solution products in bulk tankers. Umicore CSM NA employs SPCC and BMP plans to mitigate impacts to the stormwater. Filter cakes generated from the production processes are stored underneath an awning and then disposed of as Non-Hazardous Waste.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
DSN003S	Containment dikes are present around storage tanks, diversion drains are around production and storage areas, production areas are inside or under roofs, employee training is performed for SPCC and BMP plans annually, visual weekly inspections are conducted, and housekeeping is performed.	N/A
DSN004S	Containment dikes are present around storage tanks, diversion drains are around production and storage areas, production areas are inside or under roofs, employee training is performed for SPCC and BMP plans annually, visual weekly inspections are conducted, and housekeeping is performed.	

#### V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or From 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
Carole Mehl, Plant Manager		11/8/18

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

Grab samples are collected from DSN003S and DSN004S, which are monitored semi-annually in accordance with the NPDES permit requirements. The most recent collection dates were 06/15/17 and 12/5/17. No exceedances were reported. Visual inspections are conducted at least annually to evaluate for the presence of non-stormwater discharge. No non-stormwater discharges were noted. The SPCC and BMP plans were updated August 2017.

#### VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

November 22, 2016, Umicore CSM NA personnel observed a fire in the trash compactor. The trash compactor, which contains only domestic garbage, was located on the north side of the facility, adjacent to the Warehouse. Upon arrival of the Arab Fire Department, approximately 1500 gallons of water and 23 gallons of FireAde 2000 AR-AFFF 3% x 3% Foam was used to extinguish the fire. The water and foam exited the site through storm water drains. FireAde 2000 AR-AFFF 3% x 3% Foam is environmental formulated from 98% Organic Compounds (encompasses water based and food grade ingredients). It contains no PFOA or PFOS and has zero hazardous chemicals in its composition. This material is bio-degradable and contains no ingredients reportable under SARA Title III, Section 313 of 40 CFR-372 or CERCLA. This upset condition was reported to ADEM in accordance with I Part II C.2.a and b. of Umicore CSM-NA's NPDES Permit.

**VII. Discharge Information**

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.  
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☒ Yes (list all such pollutants below)

☐ No (go to Section IX)

DSN003N

The following pollutants are components of production.

Table 2F-2 -Bromide, Nitrate-Nitrite, Nitrogen total, Oil and Grease, Phosphorus total, Sulfate, Cobalt Total, Managanese Total.

The following pollutant is no longer used onsite and was part of production activities more than 10 years ago.

Table 2F-3 -Cadmium total.

DSN004N

The following pollutants are components of production.

Table 2F-2 -Bromide, Nitrate-Nitrite, Nitrogen total, Oil and Grease, Phosphorus total, Sulfate, Cobalt Total, Managanese Total, Nickel.

The following pollutant is no longer used onsite and was part of production activities more than 10 years ago.

Table 2F-3 -Cadmium total.

**VIII. Biological Toxicity Testing Data**

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (list all such pollutants below)

☒ No (go to Section IX)

**IX. Contract Analysis Information**

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)

☐ No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Enviro Management Corp	2607 Commerce Boulevard Birmingham, Alabama 35210	1-205-951-3400	COD, Bromide, BOD, pH, TSS, Oil & Grease, Nitrogen, Total, Phosphorus, Total, Cadmium, Total, Nickel Total.

**X. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name &amp; Official Title (Type Or Print)

Carole Mehl, Plant Manager

B. Area Code and Phone No.

C. Signature

D. Date Signed

11/8/18



Part A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	None Detected	N/A	NA	NA	1.00	Outfall DSN003S
Biological Oxygen Demand (BOD5)	> 19.8 mg/L	0.010 MGD	NA	NA	1.00	Outfall DSN003S
Chemical Oxygen Demand (COD)	92 mg/L	0.010 MGD	NA	NA	1.00	Outfall DSN003S
Total Suspended Solids (TSS)	1260 mg/L	0.010 MGD	NA	NA	1.00	Outfall DSN003S
Total Nitrogen	3.57 mg/L	0.010 MGD	NA	NA	1.00	Outfall DSN003S
Total Phosphorus	0.22 mg/L	0.010 MGD	NA	NA	1.00	Outfall DSN003S
pH	Minimum 7.27	Maximum	Minimum	Maximum	1.00	Outfall DSN003S

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

[illegible]

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
12/05/2017	50 minutes	NA	96 hours	0.010 M	NA

7. Provide a description of the method of flow measurement or estimate.

Calculations are based on data collected by the National Weather Service and local rain gauge.

[illegible]

	Maximum Values	Average Values		
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Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

	Maximum Values	Average Values		
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Pollutant and CAS Number (if available)	(include units)		(include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	ND	0.005 MGD	NA	NA	1.00	Outfall DSN004S
BOD	13.3 mg/L	0.005 MGD	NA	NA	1.00	Outfall DSN004S
COD	150 mg/L	0.005 MGD	NA	NA	1.00	Outfall DSN004S
TSS	1360 mg/L	0.005 MGD	NA	NA	1.00	Outfall DSN004S
Total N	2.24 mg/L	0.005 MGD	NA	NA	1.00	Outfall DSN004S
Total P	1.40 mg/L	0.005 MGD	NA	NA	1.00	Outfall DSN004S
Total Cd	ND	0.005 MGD	NA	NA	1.00	Outfall DSN004S
Bromide	0.422 mg/L	0.005 MGD	NA	NA	1.00	Outfall DSN004S
Total Ni	ND	0.005 MGD	NA	NA	1.00	Outfall DSN004S

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
12/05/2017	50 minutes	NA	96 hours	0.005 MGD	NA

7. Provide a description of the method of flow measurement or estimate.

Calculations are based on data collected by the National Weather Service and local rain gauge.

**Table 2F-1  
Codes for Treatment Units**

**Physical Treatment Processes**

1-A	Ammonia Stripping	1-M	Grit Removal
1-B	Dialysis	1-N	Microstraining
1-C	Diatomaceous Earth Filtration	1-O	Mixing
1-D	Distillation	1-P	Moving Bed Filters
1-E	Electrodialysis	1-Q	Multimedia Filtration
1-F	Evaporation	1-R	Rapid Sand Filtration
1-G	Flocculation	1-S	Reverse Osmosis (Hyperfiltration)
1-H	Flotation	1-T	Screening
1-I	Foam Fractionation	1-U	Sedimentation (Setting)
1-J	Freezing	1-V	Slow Sand Filtration
1-K	Gas-Phase Separation	1-W	Solvent Extraction
1-L	Grinding (Comminutors)	1-X	Sorption

**Chemical Treatment Processes**

2-A	Carbon Adsorption	2-G	Disinfection (Ozone)
2-B	Chemical Oxidation	2-H	Disinfection (Other)
2-C	Chemical Precipitation	2-I	Electrochemical Treatment
2-D	Coagulation	2-J	Ion Exchange
2-E	Dechlorination	2-K	Neutralization
2-F	Disinfection (Chlorine)	2-L	Reduction

**Biological Treatment Processes**

3-A	Activated Sludge	3-E	Pre-Aeration
3-B	Aerated Lagoons	3-F	Spray Irrigation/Land Application
3-C	Anaerobic Treatment	3-G	Stabilization Ponds
3-D	Nitrification-Denitrification	3-H	Trickling Filtration

**Other Processes**

4-A	Discharge to Surface Water	4-C	Reuse/Recycle of Treated Effluent
4-B	Ocean Discharge Through Outfall	4-D	Underground Injection

**Sludge Treatment and Disposal Processes**

5-A	Aerobic Digestion	5-M	Heat Drying
5-B	Anaerobic Digestion	5-N	Heat Treatment
5-C	Belt Filtration	5-O	Incineration
5-D	Centrifugation	5-P	Land Application
5-E	Chemical Conditioning	5-Q	Landfill
5-F	Chlorine Treatment	5-R	Pressure Filtration
5-G	Composting	5-S	Pyrolysis
5-H	Drying Beds	5-T	Sludge Lagoons
5-I	Elutriation	5-U	Vacuum Filtration
5-J	Flotation Thickening	5-V	Vibration
5-K	Freezing	5-W	Wet Oxidation
5-L	Gravity Thickening		

**Table 2F-2**

**Conventional and Nonconventional Pollutants**

Bromide  
Chlorine, Total Residual  
Color  
Fecal Coliform  
Fluoride  
Nitrate-Nitrite  
Nitrogen, Total Organic  
Oil and Grease  
Phosphorus, Total  
Radioactivity  
Sulfate  
Sulfite  
Surfactants  
Aluminum, Total  
Barium, Total  
Boron, Total  
Cobalt Total  
Iron, Total  
Magnesium, Total  
Molybdenum, Total  
Manganese, Total  
Tin, Total  
Titanium, Total



**Table 2F-3**

**Toxic Pollutants**

**Toxic Pollutants and Total Phenol**

Antimony, Total  
Arsenic, Total  
Beryllium, Total  
Cadmium, Total  
Chromium, Total

Copper, Total  
Lead, Total  
Mercury, Total  
Nickel, Total  
Selenium, Total

Silver, Total  
Thallium, Total  
Zinc, Total  
Cyanide, Total  
Phenols, Total

**GC/MS Fraction Volatiles Compounds**

Acrolein  
Acrylonitrile  
Benzene  
Bromoform  
Carbon Tetrachloride  
Chlorobenzene  
Chlorodibromomethane  
Chloroethane  
2-Chloroethylvinyl Ether  
Chloroform

Dichlorobromomethane  
1,1-Dichloroethane  
1,2-Dichloroethane  
1,1-Dichloroethylene  
1,2-Dichloropropane  
1,3-Dichloropropylene  
Ethylbenzene  
Methyl Bromide  
Methyl Chloride  
Methylene Chloride

1,1,2,2-Tetrachloroethane  
Tetrachloroethylene  
Toluene  
1,2-Trans-Dichloroethylene  
1,1,1-Trichloroethane  
1,1,2-Trichloroethane  
Trichloroethylene  
Vinyl Chloride

**Acid Compounds**

2-Chlorophenol  
2,4-Dichlorophenol  
2,4-Dimethylphenol  
4,6-Dinitro-O-Cresol

2,4-Dinitrophenol  
2-Nitrophenol  
4-Nitrophenol  
p-Chloro-M-Cresol

Pentachlorophenol  
Phenol  
2,4,6-Trichlorophenol  
2-methyl-4,6 dinitrophenol

**Base/Neutral**

Acenaphthene  
Acenaphthylene  
Anthracene  
Benzidine  
Benzo(a)anthracene  
Benzo(a)pyrene  
3,4-Benzofluoranthene  
Benzo(ghi)perylene  
Benzo(k)fluoranthene  
Bis(2-chloroethoxy)methane  
Bis(2-chloroethyl)ether  
Bis(2-chloroisopropyl)ether  
Bis(2-ethylhexyl)phthalate  
4-Bromophenyl Phenyl Ether  
Butylbenzyl Phthalate

2-Chloronaphthalene  
4-Chlorophenyl Phenyl Ether  
Chrysene  
Dibenzo(a,h)anthracene  
1,2-Dichlorobenzene  
1,3-Dichlorobenzene  
1,4-Dichlorobenzene  
3,3'-Dichlorobenzidine  
Diethyl Phthalate  
Dimethyl Phthalate  
Di-N-Butyl Phthalate  
2,4-Dinitrotoluene  
2,6-Dinitrotoluene  
Di-N-Octylphthalate  
1,2-Diphenylhydrazine (as Azobenzene)

Fluoranthene  
Fluorene  
Hexachlorobenzene  
Hexachlorobutadiene  
Hexachloroethane  
Indeno(1,2,3-cd)pyrene  
Isophorone  
Naphthalene  
Nitrobenzene  
N-Nitrosodimethylamine  
N-Nitrosodi-N-Propylamine  
N-Nitrosodiphenylamine  
Phenanthrene  
Pyrene  
1,2,4-Trichlorobenzene

**Pesticides**

Aldrin  
Alpha-BHC  
Beta-BHC  
Gamma-BHC  
Delta-BHC  
Chlordane  
4,4'-DDT  
4,4'-DDE  
4,4'-DDD

Dieldrin  
Alpha-Endosulfan  
Beta-Endosulfan  
Endosulfan Sulfate  
Endrin  
Endrin Aldehyde  
Heptachlor  
Heptachlor Epoxide  
PCB-1242

PCB-1254  
PCB-1221  
PCB-1232  
PCB-1248  
PGB-1260  
PCB-1016  
Toxaphene

**Table 2F-4**

**Hazardous Substances**

**Toxic Pollutant**

Asbestos

**Hazardous Substances**

Acetaldehyde  
Allyl alcohol  
Allyl chloride  
Amyl acetate  
Aniline  
Benzonitrile  
Benzyl chloride  
Butyl acetate  
Butylamine  
Carbaryl  
Carbofuran  
Carbon disulfide  
Chlorpyrifos  
Coumaphos

Cresol  
Crotonaldehyde

Cyclohexane  
2,4-D (2,4-Dichlorophenoxyacetic acid)  
Diazinon  
Dicamba  
Dichlobenil  
Dichlone  
2,2-Dichloropropionic acid  
Dichlorvos  
Diethyl amine  
Dimethyl amine

Dinitrobenzene  
Diquat  
Disulfoton  
Diuron  
Epichlorohydrin  
Ethion  
Ethylene diamine  
Ethylene dibromide  
Formaldehyde  
Furfural  
Guthion  
Isoprene  
Isopropanolamine  
Kelthane

Kepone  
Malathion

Mercaptodimethur  
Methoxychlor

Methyl mercaptan  
Methyl methacrylate  
Methyl parathion  
Mevinphos  
Mexacarbate  
Monoethyl amine  
Monomethyl amine  
Naled

Napthenic acid  
Nitrotoluene  
Parathion  
Phenolsulfonate  
Phosgene  
Propargite  
Propylene oxide  
Pyrethrins  
Quinoline  
Resorcinol  
Stronthium  
Strychnine  
Styrene  
2,4,5-T (2,4,5-Trichlorophenoxyacetic acid)  
TDE (Tetrachlorodiphenyl ethane)  
2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]  
Trichlorofan  
Triethylamine  
  
Trimethylamine  
Uranium  
Vanadium  
Vinyl acetate  
Xylene  
Xylenol  
Zirconium

**Attachment A****Umicore ADEM Permits**

Permit Number/ Certification Number	Process
711-0021-X006	Nickel Acetate Crystal Grinding Unit with Baghouse
711-0021-X007	Manganese Acetate Crystallization, Drying, and Bagging Operation with Packed Bed Scrubber and Baghouse
711-0021-X008	Cobalt Acetate Crystallization, Drying, and Bagging Operation with Baghouse and Packed Bed Scrubber
711-0021-X009	TMA Plant Flyash Recycling, Drying, and Baghouse Operation with 3 Scrubbers and Baghouse
711-0021-X010	Frit Oxide Drying and Blending Process with Baghouse
711-0021-X011	Cobalt Chloride Solution Process with Scrubber
711-0021-X012	Nickel Phosphate Operation with Packed Bed Scrubber
711-0021-X013	Cobalt Manganese Bromide Solution Process with Wet Scrubber and 8.1 MMBtu/hr Boiler
711-0021-Z001	Acetate Digesters with Packed Tower Scrubber and Mist Eliminator
711-0021-Z002	5 Reactors with Packed Tower Scrubber (1 Cobalt Nitrate, 1 Manganese Nitrate, 3 Nickel Nitrate)
711-0021-Z005	Mixed Oxide Digesters with Solution Aerators with Packed Tower Scrubber
No permit required	Nitric Acid Scrubber
(AST) Cert. ADEM Facility ID 21416 095 016961	Above Ground Storage Tanks Certification

**Attachment B**

<b>Name of Waste</b>	<b>Storage Location</b>
Domestic Trash Roll-off	Roll off box stored in Boneyard area (see map)
Carbon Filter Cleanings Non-hazardous	Roll off stored in TMA Loading Dock Area (see map)
Carbonate Cake Non-hazardous	Roll off stored in TMA Loading Dock Area (see map)
Ferric Phosphate Cake Non-hazardous	Roll off stored in TMA Loading Dock Area (see map)
Leach Residue Non-hazardous	Roll off stored in TMA Loading Dock Area (see map)
Sodium Sulfate Crystal Non-hazardous	Roll off stored in TMA Loading Dock Area (see map)
Sparkler Filter Non-hazardous	Roll off stored in TMA Loading Dock Area (see map)

# SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN

Umicore Specialty Chemicals

Arab, Alabama

FIGURE: 1

Scale: Not to Scale

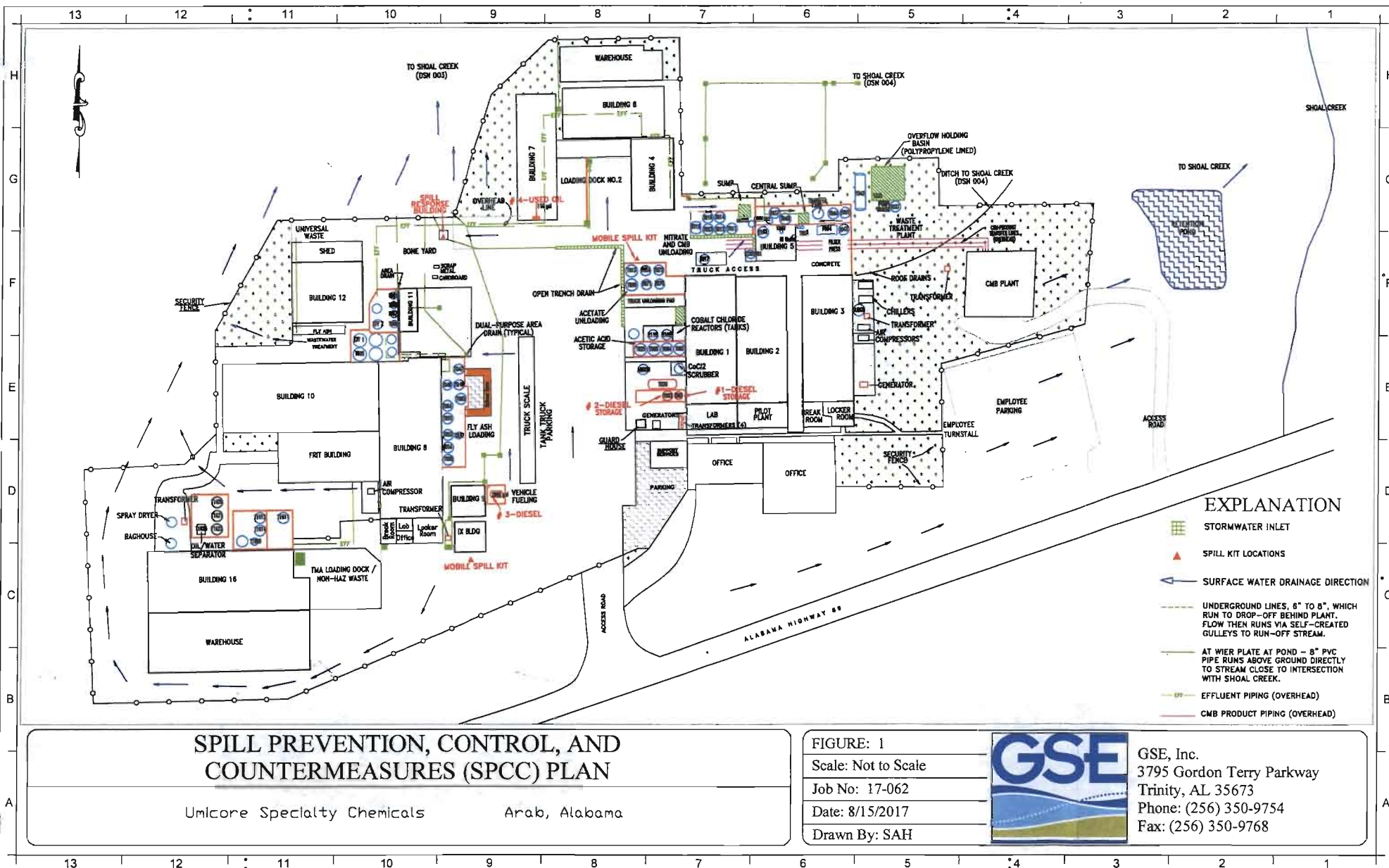
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Date: 8/15/2017

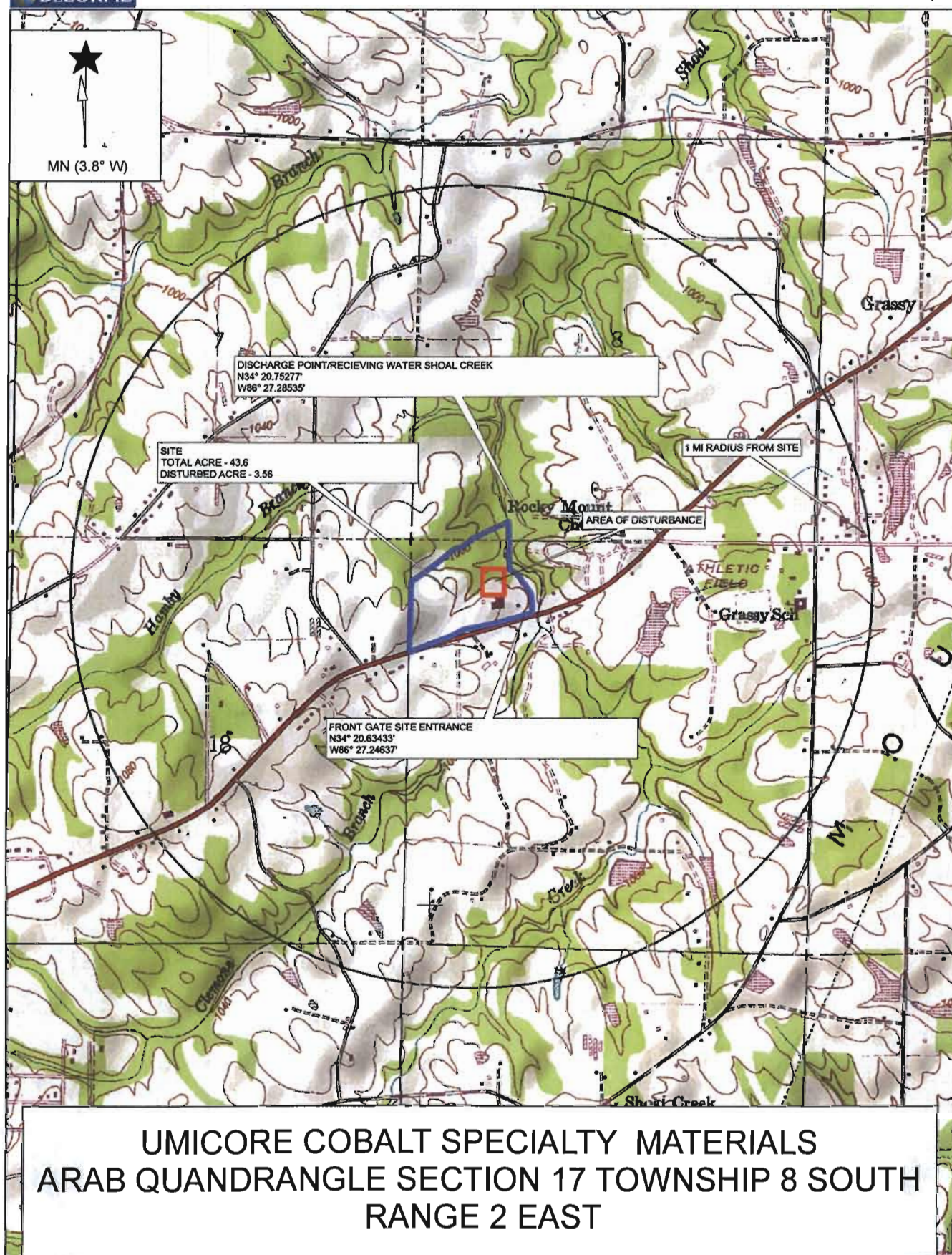
Drawn By: SAH



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ENVIRON

ESRI imagery - Source: AEX - Feb. 15, 2007

Site and Surrounding Area Map  
Umicore USA Inc. - Arab, Alabama

Figure 2

Scale: 1:10,000